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The value-added role of industry specialist advisors in M&As

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Abstract

This paper examines the value-added role of industry specialist advisors in M&As. We find that compared to non-industry specialists, advisors specializing in the target industry help acquirers garner higher announcement returns. However, there is no significant difference in acquirer returns between advisors specializing in the acquirer industry and non-industry specialists. The choice of a specialist advisor in the target industry benefits acquirers most when there is significant information asymmetry surrounding the targets. Moreover, the bulk of value creation comes from small- to medium-sized financial advisors, rather than large, top-tier investment banks. Finally, our results suggest that advisors specializing in the target industry add value mainly through their ability to help acquirers purchase targets at a lower price.

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The Value-added Role of Industry Specialist Advisors in M&As

Michael Graham, Terry S. Walter, Alfred Yawson, Huizhong Zhang*

Abstract

This paper examines the value-added role of industry specialist advisors in M&As. We find that industry specialist advisors generate higher returns for acquirers when deals are characterized by significant information asymmetry surrounding the target firms. Advisors that are able to provide value-enhancing M&A advice through their specialization effort are primarily those small- to medium-sized investment banks. This marks an important departure from prior studies, which primarily focus on advisors with the largest market share. Furthermore, acquirers benefit more from hiring advisors specializing in the target's industry than in their own industry. While specialist advisors do not construct more synergistic deals, they help acquirers purchase targets at a lower price.

JEL classification: G14, G24, G34

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1. Introduction

This paper examines the effect of industry specialist advisors on M&A outcomes for acquirer clients. Existing research suggests that industry specialization fosters the development of core competencies and allows firms to better compete on quality rather than price dimensions. This effect is empirically documented in diverse fields such as auditing (Craswell, Francis and Taylor (1995); Balsam, Krishnan and Yang (2003); Dunn and Mayhew (2004)), security analysis (Clement (1999); Jacob, Lys and Neale (1999)) and private equity (Cressy, Munari and Malipiero (2007)). In M&As, anecdotal evidence suggests many banks such as Citi, UBS, and Centerview are engaging in a "narrow-scope" strategy, designed to focus resources on a narrow set of "core" industries.[1] The resulting increased specialization can have significant implications for a bank's ability to provide value-added services for their clients. Yet, we are unaware of any study that has empirically assessed this issue. Song, Wei and Zhou (2013) investigate the role of "boutique" advisors that specialize in serving the overall M&A market. Our paper is different from theirs in that it examines financial advisors' specialization by industry.

We define industry specialization as the degree to which an investment bank concentrates in a certain industry in which it has a comparative advantage (Argote (1999); Jacobides and Winter (2005); Hartfield, Liebeskind and Opler (1996); Chamberlin (1933), Friedman (1953), Lado, Boyd and Wright (1992)). Drawing on the established theories of industry specialization and organizational learning (see e.g., Dierickx and Cool (1989)), we posit that specialization enables advisors to focus resources and learning effort on a narrow range of industries, thereby accelerating the acquisition of industry-specific knowledge and skill. For example, compared with non-industry specialist advisors, specialist advisors may have developed sophisticated

[1] See "Bank specialization: new strategies, new risk?", *Deloitte*, http://www2.deloitte.com/tr/en/pages/financial-services/articles/bank-specialization-article.html, accessed at 27/1/2016.

valuation models in their focal industries. This can help acquiring firms better identify and evaluate the potential synergistic value of a deal. Focusing on a narrow scope may also enable an advisor to work closely with firms specific to an industry, establishing networks of connections necessary for extracting information important to an acquisition's success. Thus, all else being equal, the employment of a specialist advisor should have a positive impact on acquisition performance measured by acquirer announcement abnormal returns.

There are two fundamental factors complicating our empirical analysis. First, advisor industry specialization is obviously unobservable, though a variety of proxy measures exists in the literature. The method we use is the Additive Revealed Comparative Advantage (ARCA) index, adapted from the international trade and technological specialization literature (see Balassa (1965); Archibugi and Pianta (1994); Cressy, *et al.* (2007)). The index measures an investment bank's degree of industry specialization as the concentration level of the bank's overall M&A advisory activities in an industry, relative to that of an average investment bank.[2] We consider the ARCA index to be superior to traditional proxies such as the industry market-share (IMS) approach. The IMS approach, for instance, measures a bank's degree of specialization as its relative rank of market share in an industry. In contrast, the ARCA index measures the extent to which a bank focuses resources and business activities in a specific industry, and thus, better captures the spirit of industry specialization. In addition, the IMS approach is biased in favour of those large "bulge bracket" banks that are in fact less likely to

[2] Many of the large investment banks have industry groups, where groups of individual bankers specialize. It is thus possible that a deal is advised by specialist bankers even if the investment bank itself is not classified as a specialist in an industry. We are, however, unable to measure specialization at the individual banker level due to data limitations. Instead, we argue that specialization can be inferred at the institutional level where industry specialist bankers come together as a group in the institution to advise a deal. As the specialization level of the institution increases, we expect that more resources will be directed to that industry to hire and retain industry specialists. This should lead to a larger number of specialist bankers working in a particular industry. Consistent with this view, Stigler (1951) suggests that increases in the returns to individual specialization should lead to greater firm specialization, hence the two should move together.

specialize (Neal and Riley (2004)). The ARCA index instead takes into account both large and small investment banks. By comparing the concentration level of a bank's portfolio to that of an average bank, the ARCA index ensures that the specialization level is directly comparable across both investment banks and industries. Cressy, *et al.* (2007) employ a similar methodogy to examine whether the relative industry specialization of private equity firms is valuable to their investees.

Second, the use of a specialist advisor is almost certainly non-randomly determined. For example, a specialist advisor with greater concern over its own industry reputation may avoid participating in deals that it believes are *ex ante* value-destructive. Acquirers, on the other hand, may selectively choose the type of advisor based on their own situations. It is possible, for instance, that an acquirer may hire an advisor specializing in its own industry because the advisor has a better understanding of its business and thus can recommend transactions that better suit the acquirer's needs. With this endogenous selection process, a simple Ordinary Least Squares (OLS) regression could produce inconsistent and biased estimates. We address this issue by employing a two-stage least square (2SLS) procedure throughout the analysis.

Using a sample of U.S. M&A transactions announced over the period between 1985 and 2010, we find that the use of a specialist advisor generates a positive and significant impact on acquirer abnormal returns after considering the endogenous choice of specialist advisors. The effect is, however, evident only in cross- (as opposed to same-) industry transactions. This finding suggests that a specialist advisor's industry-specific assets are more valuable in deals where acquirers do not have detailed knowledge of the potential targets, and thus, rely primarily on the specialist advisor's network and expertise to identify and evaluate the target candidates. The observed effect is economically significant. Holding other factors constant, the use of an

industry specialist increases acquirer announcement returns by 1.40%, relative to the use of a non-industry specialist advisor. This translates into U.S. $96.05 ($11.03) million incremental shareholder value for a mean (median) sized acquirer in our sample.

To formally demonstrate the advantage of the ARCA index over the IMS approach, we conduct the following analyses. First, we use the IMS approach to redefine industry specialist advisors as those leading investment banks that have the top quartile of market share in each industry. Not surprisingly, this measure is highly correlated with advisor firm size and thus provides us with a contaminated measure of industry specialization. We then re-estimate our CAR regression on an "orthogonal" version of the IMS measure, designed to capture the specialization effect uncorrelated with the effect of advisor firm size. We find that after removing the advisor size effect, the "orthogonal" version of the IMS measure produces results consistent with our earlier estimation under the ARCA index. Finally, we examine directly whether the positive association between the ARCA index and acquirer CAR stems from those large, more reputable advisors rather than industry specialists. We find that the value creation in cross-industry deals is concentrated in investment banks in the second quartile of the size distribution, but not in others. This finding provides further evidence suggesting that the ARCA index captures those small- to medium-sized investment banks, which are more likely to enhance their M&A advisory service through specialization in specific industries.

Next, we investigate whether the positive specialization-acquirer return association varies by an advisor's industry focus (i.e., specializing in the acquirer's versus the target's industry). Using a continuous measure of the ARCA index, we find that the degree of an acquirer advisor's specialization in the target industry significantly improves an acquirer's announcement abnormal returns in cross-industry transactions. However, there is no significant association between the

degree of an acquirer advisor's specialization in the acquirer's industry and acquirer CAR. This finding is consistent with the idea that M&A advice is target-specific and that it is the specialist advisors' knowledge of the target-industry, rather than the acquirer-industry, that is important to value creation.

In further analysis, we explore whether advisor industry specialization continues to positively affect acquirer abnormal returns in other types of deals characterized by target information asymmetry, namely, deals in which the volatility of the target firm's idiosyncratic return is relatively high, and deals in which the acquirer lacks recent acquisition experience in the target's industry. We find evidence consistent with our conjectures. Specialist advisors help acquirers garner higher abnormal returns around the deal announcement, especially when the advisor has specialized knowledge of the target industry. These results reinforce the idea that industry specialists add more value to acquirers when they face greater asymmetric information surrounding the quality of target firms.

Finally, we examine the channels through which a specialist advisor improves acquirer abnormal returns. We find that there is no significant association between advisor industry specialization and acquisition synergy, measured as combined announcement returns received by acquirer and target shareholders. However, takeover premiums are significantly lower for deals advised by specialist advisors than by non-industry specialists. Thus, the superior acquirer abnormal returns appear to mainly come from specialist advisors' ability to accurately evaluate target firms operating in their domains.

Our paper contributes to the M&A literature in two notable ways. First, prior research in this field mainly focuses on the role of top-tier investment banks in explaining variations in acquisition performance across acquirers (e.g., McLaughlin (1992); Servaes and Zenner (1996);

Rau (2000); Kale, Kini and Ryan (2003); Walter, Yawson and Yeung (2008), Golubov, Petmezas and Travlos (2012); Sibilkov and McConnell (2014)). We instead show that industry specialist advisors significantly enhance the shareholder value of acquiring firms through deal pricing. More importantly, the use of the ARCA index allows us to more accurately capture those advisors that are smaller and thus more likely to truly specialize in certain industries in practice. Our evidence that small- to medium-sized financial advisors are able to provide value-enhancing advice to their acquirers differentiates our paper from prior studies focusing on top-tier investment banks. Second, we contribute to the literature by showing that the value of industry specialist advisors is evident primarily in transactions where there is significant information asymmetry between the acquirer and the target, and it is the specialist advisor's knowledge of the target-industry, rather than the acquirer-industry, that is valuable to acquirers. Our study also offers practical solutions for the choice of financial advisors in M&A transactions. For instance, given that investment banks commonly advertise their specialized industries online, our findings help acquiring firms make more informed decisions about what type of financial advisors to employ.

The remainder of the paper is organized as follows. Section 2 presents the theory. Section 3 outlines the data and sample construction procedures. Section 4 provides empirical evidence on the relation between the use of a specialist advisor and acquisition performance, and Section 5 concludes.

2. Theory

A commonly held belief is that industry specialization facilitates the development of specialized factors of production that are important for firms to compete on quality in their focal industries (Montgomery and Wernerfelt (1988); Hartfield, *et al.* (1996); Solomon, Shields and

Whittington (1999); Jacob, *et al.* (1999); Moroney and Simnett (2009); Carson (2009)). In the investment banking industry, banks have more limited specialized factors of production than do other industrial firms because the difference in advisory skill sets across industries is not clear-cut. However, anecdotal evidence suggests that investment banks create industry groups, a practice that amounts to a specialized factor of production. Thus, even if a large component of advisory skills is general and transferable across industries, the validity of the industry-specific, non-transferable part of the skill set cannot be disregarded. In particular, specialization enables investment banks to concentrate firm resources and learning effort on deals from a narrow range of industries, thus accelerating the acquisition of industry-specific knowledge and skills needed to attain superior performance (Bonner and Lewis (1990); Schilling, Vidal, Ployhart and Marangono (2003)). By focusing on deals from the same industry, for instance, a specialist advisor gains critical insights into the pertinent industry trends, regulation and other industry-specific events that may significantly affect the financial performance of the merging firms. This knowledge is valuable since identifying synergistic opportunities associated with a potential target and assessing how likely these synergies will be realized in the future requires an advisor to have accurate information about the general trend of the market and how the industry of the target and the acquirer perform under different market conditions. Industry-level knowledge can also have a significant influence over the formation of valuation techniques used to price a firm's assets. For example, the methodology used to evaluate a high-tech firm with a large proportion of intangible assets is clearly different from that used to value a manufacturing firm that has a large proportion of tangible assets. By incorporating the short-run and long-run industry dynamics into their valuation models, specialist advisors are able to help their acquirer clients better price a deal, which can translate into better acquirer returns.

Furthermore, a bank with narrower scope is able to work more closely with client firms operating in its focal industries. Centerview Partners, for example, contends that the key advantage of being a specialized investment bank is its ability to be "*around our clients all the time, not just when they are doing transactions, and try to go as deeply as we can to understand their business"*.[3] Specialization allows an advisor to focus on a smaller client base and provide greater care and commitment to individual clients. By visiting the chief executives regularly and advising them on financial and strategic matters, a bank enhances its understanding of the firm's business that can be directly used to improve its M&A advisory service. For instance, performing due diligence is cheaper and more effective for a bank specializing in the target's industry, owing to its superior information about the target's strengths and weaknesses obtained through past interactions. Similarly, advisors specializing in the acquirer's industry can obtain deep knowledge of the acquiring firm's business model, financing position, goals and challenges. This allows them to provide tailored expert advice in areas such as identifying cost-effective financing alternatives and locating targets that best meets the acquirer's strategic objectives. Thus, we hypothesize that the choice of a specialist advisor has a positive effect on acquisition performance, all else being equal.

We further conjecture that the value of specialist advisors varies by industry relatedness. On the one hand, the M&A advice is usually target-specific. Thus, an advisor's knowledge of the target industry should matter more than its knowledge of the acquirer industry in determining the value creation potential for the acquiring firm. Following this line of reasoning, a specialist advisor's M&A advice should be more valuable in cross-industry acquisitions, where the acquirer is likely to face greater difficulties in identifying and evaluating a target due to the

[3] See "Small proves beautiful at boutique banks", *Financial Times*, 16 March 2014.

information asymmetry problem. On the other hand, it is possible that industry specialists add more value in same-industry deals where the advisor has in-depth knowledge of both merging firms. Consequently, it is a priori not clear which of these two scenarios would specialization have a more favourable effect on acquisition performance. We explore this issue in our empirical analysis.

3. Data and Methodologies

3.1. Sample Construction

We begin by collecting data on U.S. M&A transactions from *Thomson Financials Securities Data Collection Platinum (SDC)* database.[4] All successful and unsuccessful deals announced from 1985 to 2010 are considered if: (1) the acquirer is a U.S. public firm that has sufficient data from CRSP database to measure abnormal returns at the announcement date; (2) the payment method is disclosed by SDC; (3) the transaction value is greater than $1 million; (4) there is at least one investment bank advising the acquirer; and (5) the acquiring firm owns less than 10% of the initial stake and seeks to own more than 50% after the transaction (rumoured deals are excluded).[5] Consistent with Golubov, *et al.* (2012), we further exclude deals classified as bankruptcy acquisitions, liquidations, leveraged buyouts, privatizations, repurchases, restructurings, reverse takeovers and going private transactions. Our final sample consists of 8,266 deals.

3.2. Measuring Industry Specialization

[4] While our sample covers the period between January 1985 and December 2010, the data are collected from 1980 because the estimation of the industry specialization measure requires information for each advisor five years prior to the deal's announcement.

[5] We did not give consideration to whether the deal is completed or withdrawn because investment banks are expected to learn and accumulate industry-specific knowledge as long as they engage in deals announced in their focal industries.

We consider a wide array of statistical indicators that have been employed to proxy for industry specialization in the literature. The most commonly used proxy is perhaps the industry market share (IMS) approach, which classifies firms with the largest market share in an industry as industry specialists (e.g., Craswell, *et al.* (1995), Carson (2009)). The main problem with this approach is that it is highly correlated with firm size, and hence, biased towards larger investment banks (Neal and Riley (2004)). Consequently, a small local investment bank may advise clients exclusively in an industry, yet it would be rarely captured as an industry specialist bank under the IMS approach due to its relatively small size. In addition, the IMS approach may underspecify the number of specialist advisors in highly profitable industries, where vigorous competition can effectively prevent any individual banks from being a dominant advisor despite their effort to specialize (Neal and Riley (2004)).

An alternative measure of industry specialization is the index of Revealed Comparative Advantage (RCA) developed by Balassa (1965). This measure has been widely applied in the international trade and technological specialization studies (e.g., Archibugi and Pianta (1994)) as well as the field of corporate finance (Cressy, *et al.* (2007)). The underlying rationale of the RCA index is that banks rationally choose to specialize in industries in which they have a comparative advantage (Chamberlin (1933); Friedman (1953)). Thus, although we cannot observe directly the industries in which each bank chooses to specialize, the choice of specialization should be "revealed" through their relative performance across industries. That is, a bank should perform better than its peers if it specializes and focuses firm resources on where it can better compete (Balassa (1965)). The key advantage of the RCA index over the IMS approach is that it measures a bank's market share in a particular industry, while giving consideration to its relative size in the M&A market. This normalization technique allows the scaled or normalized levels of

industry specialization to be directly comparable across banks with different sizes. Mathematically, the RCA index is written as follows:

$$RCA_j^i=\left(X_j^i/X_j^A\right)/\left(X^i/X^A\right); \quad (1a)$$

or

$$RCA_j^i=\left(X_j^i/X^i\right)/\left(X_j^A/X^A\right); \quad (1b)$$

where: RCA_j^i = the RCA value of $investment\ bank_i$ in $industry_j$; X_j^i = the value of M&A deals advised by $investment\ bank_i$ in $industry_j$; X_j^A = the total value of M&A deals advised by $all\ investment\ banks$ in $industry_j$; X^i = the value of M&A deals advised by $investment\ bank_i$ across all industries; X^A = the total value of M&A deals advised by $all\ investment\ banks$ across all industries.

Obviously, in Equation (1a), the numerator, X_j^i/X_j^A, measures $investment\ bank_i$'s market share in $industry_j$. This is scaled by the bank's relative size in the overall M&A market (X^i/X^A). Thus, when a bank's RCA value in an industry is above one, it is specializing in that it has more market share in that industry than its aggregate market share across all industries. Conversely, the bank is not specializing if its market share in that industry is less than its aggregate market share (i.e., with a below-one RCA). Equation (1b) is a simple transform of Equation (1a). The interpretation is similar except that Equation (1b) compares the portfolio share (as opposed to market share) of $investment\ bank_i$ in $industry_j$ (X_j^i/X^i) to the average investment bank's portfolio share in that industry (X_j^A/X^A). An above-one RCA value indicates that $investment\ bank_i$ is specializing in $industry_j$ since its portfolio share of M&A advisory activities in that industry exceeds the average portfolio share of other investment banks.

To gain a better understanding of this measure, consider an investment bank that had advised on M&A deals worth a total of \$1 billion across all industries (X^i), of which \$0.2 billion came from the high-tech industry (X_j^i). The aggregate value of M&A deals was \$1 billion in the high-tech industry (X_j^A) and \$10 billion across all industries (X^A). In this example, the bank garners a market share of 20% (0.2/1) in the high-tech industry, which is two times larger than its total market share within the M&A market (10%=1/10). Thus, the RCA value of the bank in the high-tech industry is 2 (20%/10%). This suggest that given the firm resources it has, the bank is able to gain a higher market share in the high-tech industry through specialization.[6]

Given the wide use of the RCA index in the literature, Hoen and Oostaerhaven (2006) investigate the statistical properties of the RCA index and find that it has two shortcomings. First, the RCA index has an unstable mean which could be greater than the theoretical value of one. Second, the distribution of the RCA index can be asymmetric and thus sensitive to industry classifications. They therefore suggest an alternative measure, the Additive RCA (ARCA), which is a simple variation of the RCA index. Formally, the ARCA index can be written as:

$$ARCA_j^i = \left(X_j^i / X^i\right) - \left(X_j^A / X^A\right); \qquad (2)$$

where $ARCA_j^i$ is the ARCA of $investment\ bank_i$ in $industry_j$, and other notations are the same as defined in equation (1).

The ARCA index differs from the RCA index in that it takes the difference, instead of quotient as shown in Equation (1b), between the portfolio share of $investment\ bank_i$ in $industry_j$ and that of an average investment bank. The main advantage of this additive method

[6] Alternatively, one can interpret the RCA value in terms of portfolio shares (Equation (1b)). In this case, the bank's portfolio share in the high-tech industry is 20% (0.2/1), and the average portfolio share of all investment banks' M&A advisory activities in this industry 10% (1/10). Thus, the bank's RCA value is 2 (20%/10%), suggesting that the bank is specializing in the high-tech industry because it has a bigger portfolio share in the high-tech industry than an average investment bank.

is that it secures: (1) a stable mean of zero that is independent of the classification of industries; and (2) a symmetric distribution ranging from -1 to +1, which is demonstrated to be more stable than that of the RCA index (Hoen and Oostaerhaven (2006)). Theoretically, the relations between the ARCA index and industry specialization are shown as follows:

If $ARCA_{ij} > 0$, $investment\ bank_i$ is specializing in $industry_j$, meaning that $investment\ bank_i$ has a bigger portfolio share in $industry_j$ than an average investment bank;

If $ARCA_{ij} = 0$, the portfolio share of $industry_j$ in $investment\ bank_i$ is identical to the average share in reference banks; and

If $ARCA_{ij} < 0$, $investment\ bank_i$ is not specializing in $industry_j$.

An investment bank can specialize in either the target's industry or that of the acquirer. Thus, for each transaction, we construct two ARCA indices, one is measure based on the value of M&A transactions each acquirer's advisor has advised in the target's industry over the last five years before the deal announcement; the other is computed based on the value of M&A transactions advised by each acquirer advisor over the same period in the acquirer's industry. Industries are classified according to the 3-digit SIC code. We employ a five-year rolling window to account for possible changes in an advisor's industry focus over time. By definition, an investment bank that has advised on only one deal in a five-year window will be automatically classified as a specialist. Consequently, we remove all investment banks that have advised only one deal to avoid misclassification of industry specialist advisors. In the case where an acquirer hires multiple advisors, we follow prior studies such as Rau (2000) and assign the highest level of industry specialization among these advisors to the deal. When constructing the ARCA indices, we take into account the M&As among advisors which bring together the industry expertise of different investment banks, and hence, improve the performance of deals

advised by the newly merged banks. For instance, Merrill Lynch and Banc of America Securities LLC merged to form Bank of America Merrill Lynch in 2009. Thus, the ARCA value of the combined bank, Bank of America Merrill Lynch, is computed based on the value of M&A transactions advised by both Merrill Lynch and Banc of America Securities LLC in that industry over the last five years preceding the announcement date.[7] Based on these ARCA values, we classify an acquirer advisor as an industry specialist if its ARCA value in the industry of the acquirer or that of the target is greater than zero and a non-specialist otherwise.

Figures 1a and 1b depict the distribution of the acquirer advisors' ARCA indices computed based on the value of M&A deals each advisor has advised in the target's and the acquirer's industry, respectively. Both distributions are positively skewed, suggesting that relatively few investment banks are highly specialized in certain industries, resulting in large ARCA values.

[Insert Figure 1 here]

3.3. Univariate Analysis

In Table 1, we provide summary statistics for the main variables used in our empirical analysis, for the full sample and the industry specialist and non-industry specialist groups, respectively. The statistics in Panel A indicate that acquirers are more likely to select industry specialist advisors when they undertake more "difficult" deals. For example, compared to non-industry specialists, industry specialist advisors are involved more in deals in which (1) the transaction size is absolutely large; (2) the bid is made for a public or private target; and (3) the acquisition is financed by stock. They are, however, less used in relatively small deals, tender offers, all-cash deals, foreign transactions, subsidiary acquisitions, cross-industry and hostile

[7] Because SDC occasionally uses different names for the same advising bank (e.g., deals advised by 'Citi' are regarded as different from those advised by "Citigroup"), we also combine advisor names in such cases into one when measuring the industry specialization levels.

deals. The differences in these deal characteristics between the two groups of advisors are all significant at the 1% level.

Panel B, Table 1, presents the descriptive statistics for acquirer characteristics. Compared to acquirer clients of non-industry specialists, acquirers advised by industry specialist advisors experience a higher stock price run-up prior to the acquisition announcement (8.6% versus 6.9%), and have a lower free cash flow ratio (4.9% versus 5.8%). However, there is no significant difference between these two groups in terms of acquirer size, Tobin's Q, leverage and sigma.[8]

The statistics for the key transaction outcomes are reported in Panel C, Table 1. The mean (median) acquirer cumulative abnormal return (CAR) over a three-day event window is 0.3% (0%) in the overall sample. Acquirers advised by non-specialist advisors experience a mean (median) three-day CAR of 0.7% (0.2%), whereas acquirer clients of industry specialist advisors experience a lower mean (median) CAR of 0.0% (-0.3%). Nevertheless, acquirers appear to pay lower takeover premiums when they hire an industry specialist rather than a non-industry specialist (43.30% versus 45.30% in mean and 35.28% versus 36.43% in median). The differences in mean and median premiums are, however, not statistically significant.

Since the univariate analysis does not take into account confounding effects, we empirically investigate the relationship between advisor industry specialization and acquirer CAR in a multivariate OLS regression framework. We control for a set of deal and acquirer characteristics that have been shown in prior studies to be important determinants of acquirer CAR including acquirer size, preannouncement stock price run-up, sigma, free cash flow,

[8] Sigma measures a bidding firms' idiosyncratic volatility and is defined as the standard deviation of the market-adjusted daily returns of the acquirer's stock over a 200-day window (-205, -6) (Moeller, Schlingemann and Stulz, 2007).

leverage, Tobin's Q, transaction size, relative size, industry relatedness, hostility of target management, number of competing bidders, tender offer, whether the deal involves a foreign target and the interactions between target ownership status and M&A currency (e.g., Asquith, Bruner and Mullins Jr (1983), Schwert (2000), Fuller, Netter and Stegemoller (2002), Moeller, Schlingemann and Stulz (2004), Moeller, Schlingemann and Stulz (2007), Golubov, *et al.* (2012)). Golubov, *et al.* (2012) find that reputable advisors create value for acquirer clients in public acquisitions. We thus download financial advisor league tables from *Thomson Financials SDC* database and classify an advisor as reputable if the advisor is ranked among the top eight based on the transaction value it has advised, and non-reputable otherwise (*top-8 advisor*). Our top-8 specification is similar to Golubov, *et al.* (2012).[9] To fully control for the effect of advisor reputation, we include the *top-8 advisor* variable as well as its interaction with the *Public Target* dummy variable in all multivariate regressions. The key variable of interest is the industry specialist dummy variable, which is equal to one if an acquirer hires a financial advisor whose ARCA value in the acquirer or the target industry is greater than zero; and zero otherwise. We estimate the acquirer CAR regression separately for the full sample and the cross- and same-industry subsamples to test whether the importance of an industry specialist advisor varies according to industry relatedness. We classify a deal as a same- (cross-) industry transaction if the acquirer and target operate in the same (different) 3-digit SIC code.

Table 2 reports the OLS regression results. All specifications control for industry and year fixed effects (whose coefficients are unreported for the sake of brevity). The t-statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. We find that the industry specialist advisor variable is statistically insignificant throughout the table, suggesting that

[9] The following financial advisors are classified as the top-8 advisors: Goldman Sachs, Merrill Lynch (now Bank of America Merrill Lynch), Morgan Stanley, JP Morgan, Citi/Salomon Smith Barney, Credit Suisse/First Boston, Lehman Brothers (now Barclays Capital) and UBS.

advisor industry specialization has no impact on acquirer abnormal returns irrespective of deal type. As noted earlier, however, the reliability of OLS regression results hinges on whether an acquirer's choice of advisors is exogenous. In practice, acquirers rarely select financial advisors randomly. Instead, as shown in Table 1, acquirers tend to use industry specialist advisors more often in more complex deals and in transactions where they have either a higher stock run-up or a lower free cash flow. Moreover, an acquirer's choice of financial advisors and acquirer CAR could be simultaneously affected by certain unobservable factors. Compared to non-industry specialists, for instance, industry specialist advisors may have better ability to distinguish "good" from "bad" deals occurring within their specialized industries. This may allow them to cherry-pick deals that are *ex ante* value-creating. It could also be the case that acquirers consider industry specialist advisors only when the deals pose a significant value challenge. Since we cannot fully control for these unobservable factors in an OLS regression model, the coefficient estimates we obtain from Table 2 could be biased and inconsistent (MacKay and Phillips (2005), Hochberg and Lindsey (2010)). To alleviate these endogeneity concerns and properly analyze the relation between advisor industry specialization and acquisition performance, we implement a two-stage least square (2SLS) regression approach, discussed as follows.

[Insert Tables 1 & 2 here]

3.4. Econometric Model

We consider a model with the following form:

$$y_i = \alpha_0 + \gamma industry\ specialist_i + X_i\beta + \varepsilon_i, \quad (3)$$

$$industry\ specialist_i = \beta_0 + Z_i\delta + X_i\beta + \mu_i; \quad (4)$$

Equation (3) is the structural equation where y_i represents an acquisition outcome measured by acquirer abnormal return, takeover premium or total synergy; $industry\ specialist_i$

is the variable of interest which indicates whether or not an acquiring firm employs an industry specialist advisor; X_i denotes a set of exogenous variables that capture various advisor-, deal- and acquirer-specific characteristics; and ε_i is the error term. Equation (4) is the reduced form equation for the endogenous regressor, $industry\ specialist_i$. Z_i denotes a vector of exogenous instruments (introduced below); β_0 is the intercept; and μ_i is the disturbance term. The 2SLS approach has been widely employed in the fild of corporate finance to address endogeneity (e.g., Bennedsen, Nielsen, Perez-eGonzalez and Wolfenzon (2007), Hochberg, Ljungqvist and Lu (2010)).

To identify the model, we need instrumental variables (IVs) that are correlated with the choice of an industry specialist advisor (i.e., relevance criterion), but unrelated to acquisition performance other than operating *indirectly* through their impacts on the acquirer's choice of a specialist advisor for the current deal if any (i.e., exclusion criterion). Our choice of instruments is motivated by social interaction theory which posits that a firm's behavior is affected by other firms in its neighborhood (e.g., Glaeser, Sacerdote and Scheinkman (1996)). Specifically, acquiring firms in the same industry are endowed with the same information network, which can influence how they perceive the value of an industry specialist advisor through information sharing (Engelberg, Gao and Parsons (2012), Engelberg, Ozoguz and Wang (2013)). In a similar vein, geographic proximity increases interaction between many, albeit dissimilar, acquiring firms, which may lead to collective behavior of selecting a certain type of financial advisors in some geographic regions (Glaeser, *et al.* (1996), Kedia and Rajgopal (2009), Hochberg and Lindsey (2010)). Thus, following this intuition, we construct geography- and industry-based proximity variables, designed to capture the influence of local peers over an acquiring firm's choice of a financial advisor. The first variable is the "*average use of industry specialists by*

geographic peers", computed as the number of industry specialists hired by an acquiring firm's peers over the last one year prior to the announcement date, scaled by the total number of advisors employed by the same peers over the same period. Geographic peers are the acquiring firms located in the same Federal State as the acquirer. The second variable is the "*average use of industry specialists by industry peers*", defined in a similar way except that an acquiring firm's local peers are classified as those acquirers located in the industry with the same 3-digit SIC code as the acquirer. If an acquirer is more likely to watch and follow the actions of its neighboring acquiring firms, we expect it to be more likely to select an industry specialist advisor if a large proportion of its local peers had employed an industry specialist advisor in the past. Meanwhile, there is no obvious reason to believe that the average prior use of specialist advisors by peers would *directly* affect the performance of the acquirer's current deal.

With the use of two instrumental variables, we can formally test our instruments for statistical exogeneity using the Hansen-J test (Hochberg and Lindsey (2010), Fletcher and Lehrer (2011)). This test formally tests the joint null hypothesis that: (1) the instruments are uncorrelated with the structural error term, ε_i ; and (2) the model is correctly specified (i.e., the instruments are correctly excluded from the structural equation). To test whether our instruments are also "strongly" correlated with the included endogenous regressor, $industry\ specialist_i$, we employ the Stock and Yogo (2002) test (Staiger and Stock (1997)). Under the null hypothesis that the set of instruments is jointly weak (even if the model is identified), the Stock and Yogo (2002) test provides critical values that vary according to factors such as the size of the instrument set and the number of endogenous variables (Stock, Wright and Yogo (2002)). A set of instruments is considered "strong" if the test statistic exceeds the Stock and Yogo (2002) critical value for a maximal size bias that one is willing to tolerate with the estimator (e.g., the

worst-case limiting rejection rate for a nominal 5% Wald test of a null that the coefficients of the instruments are jointly equal to zero). These diagnostic test statistics are reported in the next section.

4. Empirical Analysis

4.1. Main Results

Table 3 re-estimates the relation between the use of industry specialist advisors and acquirer abnormal returns, using the 2SLS regression approach. Columns (1) and (2) report the results for the full sample, and the results for the subsample of cross- and same-industry deals are presented in Columns (3) and (4), and Columns (5) and (6), respectively. For each system, the "first-stage" model is a linear probability model which predicts the probability of an acquiring firm hiring an industry specialist advisor, using "*average use of industry specialists by geographic peers*" and "*average use of industry specialists by industry peers*" as IVs and a vector of control variables from the structural equation of acquirer CAR. The "second-stage" model predicts the acquirer three-day CAR, with control variables the same as those used in Table 2.[10] All models include year and industry fixed effects but these are not reported. The z-scores in parentheses are adjusted for heteroskedasticity and clustering at the acquiring firm level.

Columns (1), (3) and (5), Table 3, report the first-stage regression results obtained from the estimation of the combined system of equations (3) and (4) for the full sample as well as the subsample of cross- and same-industry deals. Consistent with our expectation, the instrumental variables, "*average use of industry specialists by geographic peers*" and "*average use of industry specialists by industry peers*", are positive and significant at the 1% level in all the estimated

[10] The results remain unchanged when we instead compute acquirer CAR based on an equally-weighted market index or using alternative event windows such as (-2, +2), (-5, +5), and (0, +250).

regressions. Thus, an acquiring firm is indeed more likely to hire an industry specialist advisor when there is a higher percentage of its local peers using specialist advisors in the past. The results from the full sample analysis further indicate that acquiring firms are more likely to employ a specialist advisor when they have larger market capitalization, undertake absolutely smaller but relatively larger transactions, and when they make stock-financed acquisitions of private target firms (Column (1)). However, the probability of hiring an industry specialist advisor is significantly lower in acquisitions of foreign targets. One possible explanation for this finding is that acquiring firms making foreign acquisitions appreciate more the global presence of a large, diversified investment bank rather than the deep, yet typically regional-specific, knowledge base owned by an industry specialist. Other variables have either no or a marginally significant impact on the probability of using a specialist advisor. The subsample analyses produce similar results (Columns (3) and (5)).

At the bottom of Table 3, we report the regression diagnostics. For each system the p-value of Hansen-J test statistics is greater than 10%. Thus, there is no evidence that our set of instruments violates the over-identifying restriction. To test instrument strength, we report the F-statistics for the joint significance of our instruments. We find that in all specifications, the F-test statistics are well above the Stock-Yogo critical value of 19.93, suggesting that our instruments are collectively strong.

Columns (2), (4) and (6), Table 3, report the results from the second-stage regression of acquirer three-day CAR.[11] We find that the *industry specialist* variable (instrumented) is positive and statistically insignificant in the full sample (column (2)). Moving to the subsamples, however, we find a positive and statistically significant (at the 5% level) effect of the use of an

[11] The results remain unchanged when we instead compute acquirer CAR based on an equally-weighted market index or using alternative event windows such as (-2, +2), (-5, +5), and (0, +250).

industry specialist on acquirer CAR in cross-industry transactions (column (4)), but not in same-industry deals (column (5)). The effect is economically significant. All else being equal, the use of an industry specialist advisor is associated with 1.40% increase in acquirer announcement returns, relative to the use of a non-industry specialist advisor. This translates into U.S. $96.05 ($11.03) million incremental shareholder value for a mean- (median-) sized acquirer in our sample. Overall, these findings are consistent with industry specialization enabling an advisor to provide value-enhancing M&A advice to a firm that acquires a target operating in a different industry, and hence, faces greater difficulties in evaluating the target due to information asymmetry.

With regard to control variables, we find that the *top-8 advisor* variable is positive and significant in both the full sample and the cross-industry subsample. In contrast to Golubov, *et al.* (2012), however, the interaction term between the *top-8 advisor* and the *Public Target* variable is negative, and either marginally significant or insignificant throughout the Table.[12] The deal and acquring firm level control variables generally produce coefficient estimates consistent with prior literature. For example, in line with Moeller et al. (2004) and (2007), we find that acquirers with larger size and greater free cash flows generally experience lower announcement abnormal returns in the full sample and cross-industry subsample. The coefficients on acquirer Tobin's Q is negative and statistically significant (at the 1% level) in cross-industry acquisitions. Both an acquirer's leverage ratio and stock price volatility (*sigma*) positively and significantly (at the 5% level) affect acquirer abnormal returns in the full sample. On average, relatively larger

[12] Possible reasons for this discrepancy include: (1) our sample involves M&A transactions announced for a longer period of time (between 1985-2010) when compared to the sample used in Golubov, *et al.* (2012) (between 1996-2009); (2) we consider both domestic and cross-border acquisitions, whereas Golubov, *et al.* (2012) focus on domestic transactions only; and (3) our top-8 specification includes UBS (as opposed to Lazard in Golubov, *et al.* (2012)) as one of the top-8 advisors, according to the financial advisor league tables downloaded from the *Thomson Financials SDC* database for the period 1985-2010.

deals are associated with higher acquirer abnormal returns, consistent with Asquith, *et al.* (1983), Schwert (2000), Fuller, *et al.* (2002), Moeller, *et al.* (2004), Moeller, *et al.* (2007), Golubov, *et al.* (2012). Finally, among the six acquisition types based on target listing status and M&A currency, public acquisitions financed by stock are associated with the lowest acquirer announcement returns, confirming the evidence documented by Masulis et al. (2007). Other control variables generate either no or a marginally significant effect on acquirer abnormal returns.

[Insert Table 3 here]

4.2. Industry Market Share Approach versus the ARCA Index

In Section 3.2., we have argued that the ARCA index is superior to the industry market share (IMS) approach which is highly correlated with advisor firm size. The intuition behind this argument is that firm size could be a reflection of various competitive advantages, some of which may not directly relate to a bank's specialization effort. For example, both practitioners and researchers often view larger investment banks as more reputable financial advisors (e.g., Rau (2000), Kale, *et al.* (2003), Golubov, *et al.* (2012)). The overall reputation helps an advisor to win more market share in an industry, but it may not be a specialist in a "true" sense if it knows only the trends and financial statistics from the top five major public firms but not others operating in the industry.[13] A high market share achieved by a larger advisor in an industry could also be a result of its greater capacity to accept M&A mandates than other smaller, more resource-constrained investment banks. Thus, the IMS approach does not give us a "clean" measure of advisor industry specialization. The ARCA index, on the other hand, removes firm

[13] The comment was made by Douglas M. Schmidt, who worked at larger banks such as the Drexel Burnham Lambert, and is currently the CEO and Managing Director of a specialty M&A bank, Chessiecap, Inc.

size effect through the technique of normalization (i.e., by scaling an advisor's industry market share by its total size).

To demonstrate the superiority of the ARCA index formally, we re-estimate our CAR regression on the choice of industry specialists using the IMS approach. Under the IMS approach, specialist advisors are simply those leading investment banking firms that have the largest market share in an industry (e.g., Craswell, *et al.* (1995), Carson (2009)). Accordingly, for each transaction, we measure an acquirer advisor's specialization level in the target's (acquirer's) industry as the value of transactions the advisor has advised in the target's (acquirer's) industry over the last five years, scaled by the value of all acquisitions in the same industry over the same period. An acquirer advisor is then classified as an industry specialist if it is within the top quartile of market share in the target or acquirer industry; and a non-specialist otherwise (*industry specialist – IMS*).

In Panel A, Table 4, we investigate the Pairwise correlation between advisor firm size, as proxied by the *top-8 advisor* variable; and the two alternative industry specialization measures, namely, industry specialist advisors defined by the IMS approach (*industry specialist – IMS*), and specialist advisors measured by the ARCA index (*industry specialist – ARCA*). We find that these two industry specialization measures are highly correlated at 50.25%. However, the *industry specialist – IMS* variable is positively and highly correlated with the *top-8 advisor* variable (0.48), whereas the correlation between *top-8 advisor* and *industry specialist-ARCA* is very low (0.04). Thus, although the IMS approach captures a considerable proportion of an advisor's specialization effect, it is indeed contaminated by advisor size effect which could be driven by certain advantages of a larger advisor (e.g., capacity and reputation) unrelated to the advisor's specialization effort.

To disentangle the specialization effect from the firm size effect, we follow El-Khatib, Fogel and Jandik (2015) and create "orthogonal" versions of the *industry specialist – IMS* variable and the *top-8 advisor* variable, the proxy for advisor firm's size.[14] Specifically, we orthogonalize these two variables into a set of mutually orthogonal variables such that the effect of the preceding variable (in this paper, *industry specialist – IMS*) is removed from the subsequent variable (*top-8 advisor*). This procedure allows us to capture the unique impact of industry specialization, uncorrelated with the size effect of advisors, while keeping both variables in the same regression model. Panel B, Table 4, reports the 2SLS regression results of acquirer CAR for the full sample and the subsamples of cross- and same-industry deals, using the industry specialists classified by the IMS approach. The IVs and control variables are the same as before.[15] In all regressions, the year and industry fixed effects are controlled for but not reported, and the z-scores in parentheses are adjusted for heteroskedasticity and acquirer clustering.

Columns (1), (3) and (5) report the first-stage regression results. We find that our instruments are both positive and highly significant in each of these three columns. The F-statistics reported at the bottom of Panel B, Table 4, are again well above the Stock-Yogo threshold of 19.93, indicating that weak identification is not a concern. The Hansen-J test statistics are statistically insignificant throughout the table, thus failing to reject the null hypothesis of valid instruments.

In columns (2), (4) and (6), we present the second-stage regression results, with the choice of industry specialist advisor endogenized. Consistent with our previous findings, the

[14] Orthogonalization is achieved via the modified Gram–Schmidt process (Golub and Van Loan (1996)).

[15] The original IVs, which measure the percentage of local peers hiring specialist advisors defined according to the ARCA index, should better predict the acquirer's choice of advisors since the IMS approach captures both advisor specialization and size effects. Using alternative IVs computed based on the IMS approach produces similar results, although the effect is generally weaker.

orthogonally transformed *industry specialist – IMS* variable is positive but only marginally significant in the full sample and insignificant the same-industry subsample (columns (2) and (6)). For cross-industry transactions, however, it is positive and highly significant (at the 1% level) (column (4)). The coefficient estimate of the *industry specialist – IMS* variable is 0.0136 in column (4), which is close to the estimate reported in column (4) of Table 3 (0.0140). Thus, after removing firm size effects, the IMS approach produces an estimate of specialization effect that is directly comparable to the effect estimated based on the ARCA index. The control variables exhibit effects on acquirer CAR similar to those reported in Table 3.

[Insert Table 4 here]

To provide additional evidence that the ARCA index does not capture advisor size or reputation effect, we examine whether the positive association between acquirer CAR and advisor industry specialization, measured by the ARCA index, is concentrated in large investment banking firms. To do so, we rank investment banks into size quartiles based on the value of M&A transactions each bank has advised over the last year prior to the announcement date (Rau (2000), Bao and Edmans (2011)). Next we regress acquirer CAR on the industry specialist dummy variable for each size quartile. This analysis allows us to compare the average acquirer CAR associated with industry specialist and non-industry specialist advisors within the same size categories, and hence sheds light on whether the value is created by industry specialist advisors or just those large, more reputable advisors. For brevity, we report only the coefficients on the industry specialist dummy variable, and the analysis is restricted to the subsample of cross-industry acquisitions where we find advisor industry specialization is valuable to an acquirer.

Table 5 summarizes the 2SLS regression results. We find no significant difference in acquirer CAR between industry specialist and non-industry specialist advisors for the first, third and fourth quartiles. However, those advisors in the second quartile of the size distribution are able to produce 3.21% higher acquirer abnormal returns through their specialization effort. The effect is statistically significant at the 1% level. This finding suggests that a bulk of value enhancement in cross-industry deals, as shown in Table 3, comes from small- to medium-sized industry specialist advisors rather than large advisors.

[Insert Table 5 here]

4.3. Continuous Measure of Advisor Industry Specialization

So far, we have shown a positive relation between acquirer CAR and the *industry specialist* dummy variable. A potential concern for the use of this general dummy variable is that any variation within the category is ignored. For example, advisors with positive ARCA values are all considered as industry specialists, although the ARCA could range from one to a value very close to zero. We address this issue by employing a continuous measure, which allows us to more precisely estimate the percentage change in acquirer CAR for a given change in advisor industry specialization.

As noted earlier, we have constructed two ARCA indices for each M&A transaction. The first ARCA index is computed based on the total value of M&A transactions advised by an acquirer advisor in the target's industry over the last five years prior to deal announcement (*specialization level in target industry*). The second ARCA index is measured based on the total value of M&A transactions advised by the advisor in the acquirer's industry over the same period (*specialization level in acquirer industry*). As these two variables are collinear,[16] we regress acquirer CAR on these two variables separately. For stronger identification of the model,

[16] The correlation between these two ARCA values is 0.68.

we include the industry- and geographic-based instruments which compute the average use of advisors specializing in the target's industry or in the acquirer's own industry by an acquirer's peers over the last one year prior to date announcement.

Columns (1) through (6) of Table 6, report the results from the 2SLS regressions of acquirer CAR on these two continuous measures of advisor industry specialization. We control for the same set of variables as in earlier tables, with the first-stage regression results omitted here for the sake of brevity. Again, the z-scores are adjusted for heteroskedasticity and acquirer clustering. Columns (1) through (3) estimate the impact of an acquirer advisor's specialization level in the target's industry on acquirer CAR for the full sample and the cross- and same-industry acquisition subsamples. Columns (4) through (6) repeat the analysis using the acquirer advisor's specialization level in the acquirer's industry. In each column, the Hansen-J test statistic fails to reject the null hypothesis of valid instruments. The F-statistics exceed the Stock-Yogo threshold of 19.93 in all specifications except in the subsample analysis of same-industry acquisitions.

The main results, reported in Table 6, indicate that an acquirer advisor's specialization effort in the acquirer's industry has no significant impact on acquirer CAR (columns (4) through (6)). However, an advisor's specialization level in the target's industry yields a positive and significant (at the 10% and the 5% level, respectively) impact on acquirer returns in both full sample and cross-industry acquisitions (columns (1) and (2)). This suggests that advisor industry focus matters. A specialist advisor adds more value to an acquirer when it has specialized knowledge about the target firm's industry.

To identify the effect of the most important "common element" shared by these two specialization measures, we perform a principal component analysis (e.g., Hotelling (1933), El-

Khatib, *et al.* (2015)). The first component (*PC1*) is a linear combination of the two specialization variables, which captures 83.94% of overall variance. Columns (7) through (9), Table 6, report the 2SLS regression results. Again, the regression diagnostics provide support for our choice of instruments. Consistent with our previous findings, we find that the first principal component of our continuous measures of advisor industry specialization significantly and positively affects acquirer abnormal returns in cross-industry acquisitions only. Other determinants of acquirer CAR generally have the expected signs.

[Insert Table 6 here]

4.4. Alternative Measure of Target Information Asymmetry

The preceding analysis has indicated that acquiring firms experience higher announcement abnormal returns when they employ specialist advisors in cross-industry acquisitions. This finding is most consistent with advisor industry specialization being more important in acquisitions where acquirers face greater information asymmetry about the target firms, and hence, more challenges to properly value the targets. In this subsection, we provide further evidence on this issue by assessing whether advisor industry specialization continues to positively affect acquirer abnormal returns when alternative measures of target information asymmetry are used. We consider two settings. First, we follow Officer, Poulsen and Stegemoller (2009) and employ target idiosyncratic return volatility as an alternative proxy for target information asymmetry. Intuitively, advisor industry specialization is more (less) valuable to acquiring firms when a target has higher (lower) idiosyncratic return volatility, and thus, poses greater (smaller) valuation challenges to an acquirer. We measure target idiosyncratic return volatility as the standard deviation of the target firm's market-adjusted daily returns over the period (-205, -6) prior to the announcement.

Panel A of Table 7 conducts the CAR analysis for the subsamples split based on whether the target firm has above- or below-mean idiosyncratic volatility. The first-stage results are omitted for brevity. We employ all three specialization measures, namely, the industry specialist dummy variable, and the two continuous measures of acquirer advisor's specialization in the target's industry and in the acquirer's industry. Since the sample here includes only public acquisitions for which the data on target share price are available, we exclude the interaction term between the *top-8 advisor* and *public target* variables from our model. The six interaction terms between target listing status and payment method are replaced by the *payment include stock* variable. The IVs and other control variables are the same as those shown in Table 3. Columns (1) through (3) present the results from the second-stage regression of acquirer CAR on each of our specialization measures for the subsample of target firms with above-mean idiosyncratic return volatility. Columns (4) through (6) repeat the analysis for the subsample of target firms with below-mean idiosyncratic return volatility. In all columns, the Hensen-J test statistics fail to reject the null hypothesis of valid instruments. The F-test statistics suggest that our instrumentation is collectively strong in all but the specifications where continuous measures of advisor industry specialization are used in the subsample of target firms with below-mean return volatility (columns (5) and (6)).

Consistent with our conjecture, the results indicate a positive and significant (at the 5% level) association between an acquirer advisor's specialization level in the target's industry and acquirer CAR when target firms have above-mean idiosyncratic return volatility (column (2)). We find similarly positive estimates for the general industry specialist dummy variable and the continuous measure of acquirer advisor's specialization level in the acquirer's industry, but both estimates are statistically insignificant (columns (1) and (3)). On the other hand, none of our

specialization measures significantly affects acquirer announcement returns in the acquisitions of firms with below-mean idiosyncratic return volatility.

Second, we investigate whether advisor industry specialization is more helpful for acquiring firms with no recent acquisition experience in the target's industry. Past acquisitions of other firms in the target's industry allow an acquirer to develop knowledge of that industry, which is directly transferrable and applicable to the assessment of the target in the current deal. This reduces information asymmetry, and hence, the value of the acquirer advisor's industry expertise. Thus, we expect advisor industry specialization to be more valuable to acquirers with no prior M&A experience in the target's industry, in which case the information asymmetry problem is more severe. We measure an acquirer's past acquisition experience as the number of acquisitions that it has undertaken in the same 3-digit SIC industry as the current target over the last three years before deal announcement.[17]

Panel B of Table 7 regresses acquirer CAR on our three industry measures for the subsamples split based on whether the acquiring firm has made any acquisition in the target's industry in the past. All estimates are taken from the 2SLS regression model, with the first-stage regression results suppressed for brevity. Again, the IVs and control variables are the same as those shown in Table 3. The diagnostics for our IV models are similar to those reported in Panel A of Table 7. Columns (1) through (3) report the second-stage results for the subsample of acquiring firms with no past acquisition experience in the target's industry. Consistent with our expectation, we find evidence of a significant positive effect of an acquirer advisor's specialization in the target's industry on the acquirer CAR when the acquirer has no recent experience in acquiring firms in the target's industry (columns (1) & (2)). In contrast, there is no

[17] Our results continue to hold when an acquirer's past acquisition experience is measured over an alternative rolling window such as 1 year and 5 years.

significant association between our industry specialization measures and acquirer abnormal returns for the subsample of acquirers with recent acquisition experience in the target's industry (columns (4) through (6)). Overall, these results add to the evidence suggesting that an acquirer benefits most from hiring a specialist advisor with detailed knowledge about the target's industry when there is significant information asymmetry surrounding the target.

[Insert Table 7 here]

4.5. Additional Robustness Checks

We conduct a number of additional tests to verify the validity of our findings. First, Figure 1 indicates that the ARCA index is highly concentrated around zero. Thus, a potential concern is that the difference in the level of advisor industry specialization could be actually very small when a zero ARCA value is used as a cut-off point. [18] For instance, compared to an advisor with a negative ARCA value of 0.05 (i.e., a non-industry specialist), an advisor with a positive ARCA value of 0.05 is considered as an industry specialist, although the difference in the level of industry specialization between these two advisors is only 0.1. We have alleviated this concern by regressing acquirer CAR on the continuous measure of the ARCA index in Table 6. As an additional robustness check, we repeat our analysis on the industry specialist dummy variable defined based on the top and bottom third of the ARCA values only. This procedure allows us to focus on advisors at the extremes that arguably possess the largest differences in their specialization levels. Appendix B, Table B.I, reports the 2SLS regression results for the full sample as well as the subsamples divided based on industry relatedness. We continue to find a positive and statistically significant impact of advisor industry specialization on acquirer CAR in cross-industry acquisitions only.

[18] Note that the cut-off point of zero is theoretically determined. Based on Equation (2), a zero ARCA value suggests that the advisor does not do more or less M&A deals in an industry compared to an "average" bank.

Second, when there is more than one financial advisor involved in a deal, we assign the highest ARCA value among the advisors to that deal. This approach may overstate the degree of advisor industry specialization, leading to biased estimates of the corresponding parameter. To address this problem, we re-conduct our CAR analysis using the average ARCA value for deals with multiple advisors. Appendix B, Table B.II, presents the 2SLS regression results and we find our key findings remain unchanged.

Third, we measure the ARCA index based on the value of deals advised by each acquirer advisor in an industry. However, compared with the value basis, the number basis may better capture the situations where advisors have developed industry expertise through processing many, albeit small, M&A transactions (e.g. Balsam, *et al.* (2003); Benou, Gleason and Madura (2007)). We thus recompute the ARCA index based on the number (as opposed to value) of M&A transactions that each advisor has advised in an industry over the last five years prior to the deal announcement. The results, reported in Appendix B, Table B.III, indicate that the positive relation between advisor industry specialization and acquirer CAR in cross-industry deals is robust to this alternative measure of ARCA.

Finally, investment banks may specialize in more broadly defined industries in order to maximize the benefits from economies of scale (Dunbar (2000)). We check whether our results are sensitive to alternative industry classifications by re-computing the ARCA index based on the 2-digit SIC code and Fama-French 12 industry classification, respectively. We find our findings are not sensitive to industry classifications, as indicated by the results shown in Appendix B, Table B.IV.

Having established the robustness of our findings, we proceed to investigate the economic sources through which a specialist advisor improves acquirer abnormal returns in the

following sections. We focus our attention on those M&A transactions in which advisor industry specialization matters, namely, cross-industry acquisitions, acquisitions with above-mean target idiosyncratic return volatility, and acquisitions where acquiring firms have no recent acquisition experience in the target's industry.

4.6. Source of Value Creation

Specialist advisors may improve acquisition performance because they have extensive knowledge of and connections with firms operating in their specialized industries. As a result, specialist advisors may have better ability to identify targets that suit the acquirer's current business portfolio, leading to M&A deals with higher synergy. It is also possible that specialist advisors' superior industry knowledge provides them with an information advantage about the true value of the target firms operating in their specialized industries. This allows specialist advisors to help an acquirer avoid overpayment or purchase the target at a lower price (for example, by pricing the target more accurately and/or better negotiation). We examine these contentions by investigating whether advisor industry specialization is associated with deals with higher acquisition synergy and takeover premiums.

4.6.1. Acquisition Synergy

We measure acquisition synergy as combined announcement returns received by acquirer and target shareholders (e.g., Wang and Xie (2009), Cai and Sevilir (2012)). Following Wang and Xie (2009), we first construct a value-weighted portfolio of the acquirer and the target for each M&A transaction. The weights are the market capitalization of the respective firms 11 days prior to the announcement date, with the target's weight adjusted for the value of target equity held by the acquirer before the deal announcement. The acquisition synergy is then defined as the portfolio's cumulative abnormal returns (PCAR) over a three-day event window. Note that

this analysis significantly reduces our sample size since we can only compute acquisition synergy for publicly listed target firms.

Table 8 estimates the 2SLS regressions of PCAR on the choice of an industry specialist advisor for the subsamples of cross-industry deals, acquisitions of target firms with above-mean idiosyncratic return volatility, and acquisitions in which acquirers lack acquisition experience in the target's industry. We include the same set of IVs and control variables as in our acquirer CAR analysis, except that: (1) the interaction term between the *top-8 advisor* and *public target* variables is excluded; and (2) the six interaction terms between target listing status and payment method are replaced by the *payment include stock* variable, due to multicollinearity problems.

Columns (1), (3) and (5) report the first-stage regression results for each subsample. We find that our instruments are positive and significant at the 1% level in each first-stage regression model. The F-test statistics for weak identification exceed the Stock-Yogo critical value of 19.93 for a 10% maximal size distortion in all specifications, indicating that our instruments satisfy the relevance condition. The Hansen-J statistics for over-identification of all IVs fail to reject the null hypothesis of valid instruments, indicating that our instruments are statistically "exogenous" for each of the second-stage regressions.

Columns (2), (4) and (6) of Table 8 presents the second-stage regression results. We find that the industry specialist dummy variable (instrumented) is positive but statistically insignificant in each subsample. Thus, the positive CAR we document in Table 3 does not appear to be driven by specialist advisors' ability to identify more synergistic targets, at least in public transactions.

[Insert Table 8 here]

4.6.2. Takeover Premium

Another way for industry specialist advisors to produce superior acquirer abnormal returns is to help acquirers reduce acquisition costs, through either their negotiation skills or deal pricing. To investigate this possibility, we examine whether the use of industry specialist advisors is associated with lower takeover premiums. We measure takeover premium using the methodology developed by Officer (2007), which allows us to include both listed and unlisted targets. Specifically, we proxy the takeover premium by using the price-to-earnings (PE) multiple, which compares the price offered by the acquirer for the target to the total earnings made by the target for the year before the acquisition (e.g., Officer (2007)). We use the PE multiples reported by SDC for acquisitions of public targets. When a deal involves an unlisted target, the premium is defined as the average premium paid for a portfolio of comparable public targets that are within the same 3-digit SIC industry and year as the unlisted targets, consistent with Officer (2007) and Harford, Humphery-Jenner and Powell (2012).

In Table 9, we report the 2SLS regression results of takeover premium, while controlling for the same set of firm and deal characteristics as in our CAR analysis. Columns (1), (3) and (5) provide the first-stage regression results for the subsample of cross-industry deals, targets with above-mean idiosyncratic return volatility, and acquirers without prior acquisition experience in the target's industry. Again, in all specifications, we find no evidence that our instrumentation violates the exclusion restriction, as indicated by the insignificant Hansen-J test statistics. The F-test statistics are well above the threshold of the Stock-Yogo critical value, indicating that weak identification is unlikely to be a concern.

Columns (2), (4) and (6) of Table 9 present the second-stage regression results. In all columns, we observe a negative and significant impact of the industry specialist dummy variable (instrumented) on the level of takeover premiums. The coefficient estimates suggest that when an

industry specialist advisor is hired, takeover premiums paid by acquirers are reduced by 16.69 percentage points in cross-industry deals, 19.82 percentage points in acquisitions of targets with high idiosyncratic return volatility, and 11.96 percentage points in deals where acquirers lack relevant past acquisition experience. We also repeat the test with alternative measures of takeover premiums including price to book value of equity, deal value to sales, the percentage premium of offer price over the target price four weeks before deal announcement, and the acquirer's share of dollar-denominated surplus computed based on actual (as opposed to proxy) premium. We find our inferences are not affected (unreported). Overall, the lower premiums associated with the use of industry specialist advisors provide an explanation for the superior acquirer abnormal returns we observe in transactions characterized by more severe information problems.

[Insert Table 9 here]

5. Conclusion

Inspired by the recent trend of investment banks' industry specialization, this paper examines the impact of advisor industry specialization on deal performance for a sample of U.S. M&A transactions announced between 1985 and 2010. We find that industry specialist advisors help acquirers garner higher announcement returns, but this occurs only in deals where the acquirer faces significant challenges in evaluating a target due to its unfamiliarity of the target's industry. In contrast to prior research that emphasizes the value-added role of large, reputable advisors, we find that the value created by advisor industry specialization primarily resides in those small- to medium-sized specialist advisors. Furthermore, advisors specializing in the target's industry create more shareholder value for an acquirer client than do those specializing in the acquirer's industry, suggesting that the knowledge of target industry is more helpful to

acquirers. Finally, we show that specialist advisors add value primarily through their ability to more accurately evaluate target firms. Overall, our results suggest that advisor industry specialization is economically beneficial from the acquirer's perspective.

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Appendix A: Variable Definitions

Variable	Definition
Panel A: Dependent Variables and Industry Specialization	
CAR (-1, 1)	Cumulative abnormal returns of the acquiring firm stock over the event window (-1, +1) surrounding the announcement date. The return is calculated using the market model with the CRSP value-weighted index as a benchmark. The model parameters are estimated over the (-300, -91) period prior to the announcement.
Combined CAR	Combined cumulative announcement returns received by acquire and target shareholders over the event window (-1, +1) surrounding the announcement date.
Takeover premium	The premium is defined as the price-to-earnings multiple reported by SDC for public acquisitions; and the average price-to-earnings for a portfolio of comparable public targets for non-public targets acquisitions.
Advisor industry specialization	The relative degree of advisors' specialization in the acquirer (target) industry determined by the ARCA measure. It is calculated based on the total value of deals advised by an advisor in the acquirer's (target's) industry over the last five years prior to the announcement date, where the industry is defined by the 3-digit SIC code.
Industry specialist advisor	A dummy variable equal to 1 if the advisor is classified as a specialist if the ARCA value is above 0; and 0 otherwise.
Panel B: Deal Characteristics	
Log (Deal Size)	The natural logarithm of the value of the transaction in millions of $US dollars.
Relative Size	The deal value divided by the market value of the bidding firm's equity one month prior to the announcement date.
Relatedness	A dummy variable equal to 1 if the acquirer and the target are operating in the same industries with a common 3-digit SIC code and 0 otherwise.
Public Target	A dummy variable equal to 1 if the bid is for public target and 0 otherwise.
Private Target	A dummy variable equal to 1 if the bid is for private target and 0 otherwise.
Subsidiary Target	A dummy variable equal to 1 if the bid is for subsidiary target and 0 otherwise.

Foreign Target	A dummy variable equal to 1 if the bid is for foreign target and 0 otherwise.
All –Cash Deals	A dummy variable equal to 1 if the payment is pure cash and 0 otherwise.
Pmt. Incl. Stock	A dummy variable equal to 1 if the payment includes stock and 0 otherwise.
Tender Offer	A dummy variable equal to 1 if the deal is a tender offer and 0 otherwise.
Hostile	A dummy variable equal to 1 if the deal is classified as "hostile" by Thompson Financial SDC and 0 otherwise.
Acq. (Targ.) Industry M&A Industry M&A	The total value of all M&A transactions reported by SDC for each prior year and 3-digit SIC code over the book value of total assets of all Compustat firms in the same year and 3-digit SIC code.
Multiple Bidders	A dummy variable equal to 1 if there are multiple bidders and 0 otherwise.
Panel C: Acquirer Characteristics	
Acquirer Size	The market value of the bidding firm's equity 1 month prior to the announcement date in millions of $US dollars.
Tobin's Q	Market value of assets divided by book value of assets for the fiscal year prior to the acquisition. The market value of assets is equal to book value of assets plus market value of common stock minus book value of common stock minus balance sheet deferred taxes.
Run-up	Market-adjusted buy-and-hold returns of the acquirer's stock over a 200-day window (-205, -6).
Sigma	Standard deviation of the market-adjusted daily returns of the acquirer's stock over a 200-day window (-205, -6).
Leverage	The sum of long-term debt and short-term debt divided by the market value of total assets measured at the end of the fiscal year prior to the acquisition.
Free Cash Flow	Operating income before depreciation minus interest expense minus income tax plus changes in deferred taxes and investment tax credits minus dividends on both preferred and common share divided by the book value of total assets at the fiscal year-end before the announcement date.

Appendix B: Robustness Checks

Table B.I

Industry Specialist Advisors Based on the Top Third and Bottom Third of the ARCA Index

This table re-examines the relation between advisor industry specialization and acquirer CARs for the full sample as well as the cross- and same-industry deal subsamples, using industry specialist advisors defined based only on the top third and bottom third of the ARCA index. In each model, the first column reports the results from the first-stage regression of the use of industry specialist advisor, equal to 1 if an acquirer hires an industry specialist advisor in the top third of the ARCA index, and 0 otherwise. The instrumental variables are the same as those used in Table 3. The second column reports the results for the second-stage regression of acquirer CAR over the event window (-1, +1). All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Full		Cross-industry		Same-industry	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist – Top and Bottom 3rd of the ARCA Index		0.0081		0.0134**		0.0002
		(1.5871)		(2.1853)		(0.0284)
Top 8	-0.0043	0.0077**	0.0102	0.0121**	-0.0161	0.0007
	(-0.2273)	(2.0579)	(0.3840)	(2.5096)	(-0.6177)	(0.1593)
Top 8 * Pub. Target	-0.0060	-0.0066	0.0209	-0.0073	-0.0256	-0.0051
	(-0.2432)	(-1.4807)	(0.5924)	(-1.1815)	(-0.7524)	(-0.8879)
Ln (Acquirer Size)	0.0152***	-0.0022**	0.0039	-0.0029**	0.0306***	-0.0012
	(2.5867)	(-2.2828)	(0.5083)	(-2.2144)	(3.7571)	(-0.8551)
Tobin's Q	0.0058*	-0.0013	0.0060	-0.0027**	0.0048	-0.0006
	(1.8887)	(-1.3328)	(1.2351)	(-2.5308)	(1.2132)	(-0.4895)
Free Cash Flow	0.0733**	-0.0291**	0.0901*	-0.0263*	0.0482	-0.0319
	(2.0081)	(-2.3389)	(1.8934)	(-1.7630)	(0.8705)	(-1.6419)
Leverage	-0.0030	0.0207**	0.0506	0.0100	-0.0364	0.0274*
	(-0.0572)	(2.0216)	(0.6985)	(0.7452)	(-0.4764)	(1.8980)
Run-up	0.0007	-0.0034	-0.0032	-0.0045	0.0052	-0.0037
	(0.0532)	(-0.8823)	(-0.1719)	(-0.9817)	(0.2739)	(-0.6627)
Sigma	0.1455	0.2786*	0.3446	0.2259	0.1016	0.3815*
	(0.2543)	(1.8556)	(0.4209)	(1.1176)	(0.1238)	(1.7327)
Ln (Deal Value)	-0.0131**	-0.0033***	-0.0117	-0.0041***	-0.0183**	-0.0020
	(-2.1196)	(-2.6231)	(-1.4157)	(-2.5973)	(-2.0016)	(-1.1636)
Relative Size	0.0090*	0.0042***	0.0076	0.0047***	0.0113	0.0038
	(1.8415)	(2.7959)	(1.3543)	(2.7716)	(1.5323)	(1.3469)
Tender	0.0171	0.0122**	-0.0035	0.0130**	0.0309	0.0063
	(0.6452)	(2.1068)	(-0.1043)	(1.9968)	(0.7098)	(1.0640)
Hostile	0.0040	-0.0187**	0.0407	-0.0228*	-0.0167	-0.0089
	(0.0784)	(-1.9940)	(0.6892)	(-1.8428)	(-0.1853)	(-0.7233)
Relatedness	-0.0099	0.0017				
	(-0.7259)	(0.7158)				
Pub. Target * All-Cash	0.0064	-0.0098**	-0.0192	-0.0098*	0.0328	-0.0075
	(0.2378)	(-2.3255)	(-0.5245)	(-1.6449)	(0.7668)	(-1.3767)
Pub. Target * Pmt. incl. Stock	0.0320*	-0.0399***	0.0060	-0.0410***	0.0517*	-0.0395***
	(1.6665)	(-10.7188)	(0.2154)	(-7.6338)	(1.8509)	(-7.7591)
Priv. Target * All-Cash	-0.0057	0.0011	-0.0697*	0.0058	0.0401	-0.0068
	(-0.2135)	(0.1730)	(-1.8134)	(0.8215)	(1.0749)	(-1.0281)
Priv. Target * Pmt. incl. Stock	0.0596***	-0.0043	0.0454	-0.0060	0.0751***	-0.0027
	(3.0296)	(-1.0668)	(1.5315)	(-0.9489)	(2.7561)	(-0.5007)
Sub. Target * All-Cash	-0.0233	0.0049	-0.0382	0.0023	-0.0026	0.0067
	(-0.9622)	(1.1775)	(-1.2079)	(0.3890)	(-0.0709)	(1.1674)
Foreign Target	-0.0272	-0.0028	-0.0168	-0.0030	-0.0347	-0.0021
	(-1.3606)	(-0.7970)	(-0.5990)	(-0.6314)	(-1.2020)	(-0.3902)
Multiple Bidders	0.0071	0.0104	0.0303	0.0109	-0.0371	0.0006
	(0.2382)	(1.1719)	(0.7631)	(1.1909)	(-0.7343)	(0.0698)

Ln (Acq. Industry M&A)	-0.0023	-0.0016*	-0.0123**	-0.0008	0.0053	-0.0017
	(-0.4580)	(-1.6449)	(-2.0996)	(-0.7104)	(0.6893)	(-1.0921)
Ln (Targ. Industry M&A)	-0.0063	0.0007	-0.0093	0.0011		
	(-1.2507)	(0.8386)	(-1.5647)	(1.2606)		
Average Use of Specialist by Industry Peers	0.7146***		0.7637***		0.6571***	
	(19.6182)		(13.4948)		(13.2748)	
Average Use of Specialist by Geographic Peers	0.8933***		0.8824***		0.9110***	
	(41.3519)		(32.6725)		(24.9497)	
Intercept	-0.2829**	0.0925***	-0.0732	0.1148***	-0.4914***	0.0556*
	(-2.1781)	(4.2644)	(-0.3935)	(3.9951)	(-2.8934)	(1.9400)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
N	4910	4910	2249	2249	2661	2661
Hansen J Chi2	-	0.492	-	0.040	-	0.167
p-value	-	*0.483*	-	*0.842*	-	*0.683*
IV strength test	-	1379.491	-	844.928	-	490.163
F	61.828***	7.311***	37.699***	4.169***	29.537***	4.734***

Table B.II
Industry Specialist Advisors Based on Average ARCA

This table re-examines the relation between advisor industry specialization and acquirer CARs for the full sample as well as the cross- and same-industry deal subsamples, using industry specialist advisors defined based on the average ARCA value when multiple advisors are involved in a deal. In each model, the first column reports the results from the first-stage regression of the use of industry specialist advisor, where the instrumental variables are the same as those employed in Table 3. The second column reports the results for the second-stage regression of acquirer CAR over the event window (-1, +1). All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Full		Cross-industry		Same-industry	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist - Avg. ARCA		0.0125		0.0210**		-0.0069
		(1.5265)		(2.5151)		(-0.4462)
Top 8	0.0464***	0.0056*	0.0333	0.0089**	0.0551***	0.0007
	(2.6283)	(1.6748)	(1.2983)	(2.0262)	(2.6486)	(0.1816)
Top 8 * Pub. Target	0.0064	-0.0070*	0.0138	-0.0082	0.0049	-0.0040
	(0.2787)	(-1.7110)	(0.3982)	(-1.4474)	(0.1738)	(-0.7820)
Ln (Acquirer Size)	0.0028	-0.0025***	0.0124*	-0.0027**	-0.0046	-0.0026**
	(0.5683)	(-2.7989)	(1.7644)	(-2.3005)	(-0.6757)	(-2.0304)
Tobin's Q	0.0024	-0.0012	0.0034	-0.0027***	0.0009	-0.0003
	(0.8491)	(-1.3418)	(0.7595)	(-2.7472)	(0.2521)	(-0.2591)
Free Cash Flow	-0.0072	-0.0242**	-0.0019	-0.0234	-0.0070	-0.0268
	(-0.2088)	(-2.0751)	(-0.0396)	(-1.6411)	(-0.1516)	(-1.4718)
Leverage	0.0198	0.0204**	-0.0066	0.0146	0.0288	0.0185
	(0.4309)	(2.2634)	(-0.1010)	(1.2203)	(0.4868)	(1.4666)
Run-up	0.0094	-0.0053	0.0021	-0.0058	0.0138	-0.0057
	(0.7146)	(-1.5165)	(0.1115)	(-1.3783)	(0.7774)	(-1.1005)
Sigma	1.0926**	0.2736**	1.3480*	0.1971	0.6370	0.3722*
	(2.1834)	(2.0347)	(1.7531)	(1.0634)	(0.9402)	(1.9336)
Ln (Deal Value)	0.0072	-0.0021	0.0003	-0.0027*	0.0086	-0.0004
	(1.1983)	(-1.6152)	(0.0361)	(-1.7062)	(1.2153)	(-0.2354)
Relative Size	0.0037	0.0043***	0.0083	0.0044***	0.0034	0.0040
	(0.6485)	(2.9108)	(1.4884)	(2.6044)	(0.3675)	(1.5570)
Tender	-0.0249	0.0098	-0.0588	0.0121*	0.0326	0.0034
	(-0.8358)	(1.6103)	(-1.4978)	(1.7246)	(0.9388)	(0.6372)
Hostile	0.0151	-0.0184**	-0.0372	-0.0217**	0.0851	-0.0112
	(0.3101)	(-2.1858)	(-0.5960)	(-1.9617)	(1.2444)	(-1.0830)
Relatedness	-0.1941***	0.0055**				
	(-15.9070)	(2.1303)				
Pub. Target * All-Cash	-0.0059	-0.0086**	-0.0112	-0.0086	-0.0071	-0.0076
	(-0.2459)	(-2.1785)	(-0.3122)	(-1.5428)	(-0.2230)	(-1.5121)
Pub. Target * Pmt. incl. Stock	-0.0486***	-0.0396***	-0.0531*	-0.0386***	-0.0356	-0.0421***
	(-2.7741)	(-11.5787)	(-1.9327)	(-7.8382)	(-1.6204)	(-9.1969)
Priv. Target * All-Cash	-0.0410	0.0007	-0.0792*	0.0107	0.0044	-0.0116**
	(-1.3214)	(0.1041)	(-1.8365)	(1.4259)	(0.1325)	(-1.9842)
Priv. Target * Pmt. incl. Stock	-0.0199	-0.0010	-0.0010	-0.0004	-0.0173	-0.0021
	(-1.0956)	(-0.2532)	(-0.0335)	(-0.0649)	(-0.7929)	(-0.4164)
Sub. Target * All-Cash	-0.0250	0.0032	-0.0362	0.0022	-0.0132	0.0040
	(-1.2491)	(0.9181)	(-1.2265)	(0.4410)	(-0.5134)	(0.8279)
Foreign Target	0.0274	-0.0052*	0.0396	-0.0047	0.0106	-0.0048
	(1.6295)	(-1.6746)	(1.5535)	(-1.0945)	(0.4970)	(-1.0700)
Multiple Bidders	-0.0666*	0.0073	-0.0556	0.0129	-0.0823**	-0.0064
	(-1.6528)	(0.7741)	(-1.0830)	(1.2968)	(-2.2741)	(-0.9417)
Ln (Acq. Industry M&A)	0.0076*	-0.0018**	0.0001	-0.0013	0.0192***	-0.0012
	(1.6465)	(-2.0422)	(0.0188)	(-1.2571)	(3.3858)	(-0.9357)
Ln (Targ. Industry M&A)	0.0018	0.0004	-0.0049	0.0004		
	(0.4258)	(0.5129)	(-1.0184)	(0.4616)		

Average Use of Specialists by Industry Peers	0.2186***		0.3784***		0.0836*	
	(5.6184)		(6.0722)		(1.8475)	
Average Use of Specialists by Geographic Peers	0.5088***		0.6184***		0.3744***	
	(22.5357)		(21.2792)		(12.0264)	
Intercept	-0.1068	0.0769***	-0.2455	0.0764***	-0.1268	0.0716***
	(-0.9880)	(3.7102)	(-1.4335)	(2.8024)	(-0.9729)	(2.7185)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
N	6121	6121	2856	2856	3265	3265
Hansen J Chi2	-	0.076	-	0.088	-	0.272
p-value	-	0.783	-	0.767	-	0.602
Instrument Strength Test		297.205		286.770		84.276
F	21.837***	8.986***	16.634***	4.666***	6.277***	6.169***

Table B.III
Constructing the ARCA Index Based on the Number of Deals

This table re-estimates the impact of industry specialist advisors on acquirer CARs for the full sample as well as the cross- and same-industry deal subsamples. Advisor industry specialization is measured by the ARCA index constructed based on the total number (as opposed to value) of deals advised by each acquirer advisor over the last five years prior to deal announcement. In each model, the first column reports the results from the first-stage regression of the use of industry specialist advisor, where the instrumental variables are the same as those employed in Table 3. The second column reports the results for the second-stage regression of acquirer CAR over the event window (-1, +1). All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Full		Cross-industry		Same-industry	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist – Num. Basis		0.0092		0.0192**		-0.0038
		(1.5489)		(2.5378)		(-0.4704)
Top 8	0.0144	0.0060*	0.0500**	0.0086**	-0.0239	0.0002
	(0.8518)	(1.7973)	(2.1510)	(1.9928)	(-0.9719)	(0.0398)
Top 8 * Pub. Target	-0.0294	-0.0066	-0.0129	-0.0076	-0.0336	-0.0039
	(-1.3096)	(-1.6254)	(-0.4055)	(-1.3569)	(-1.0307)	(-0.7790)
Ln (Acquirer Size)	0.0099*	-0.0026***	0.0063	-0.0026**	0.0140*	-0.0026**
	(1.7030)	(-2.8983)	(0.8011)	(-2.1610)	(1.7657)	(-1.9763)
Tobin's Q	-0.0004	-0.0012	-0.0028	-0.0026***	0.0018	-0.0003
	(-0.1421)	(-1.2971)	(-0.5783)	(-2.5950)	(0.4903)	(-0.2522)
Free Cash Flow	0.0185	-0.0250**	0.0419	-0.0242*	-0.0052	-0.0282
	(0.4363)	(-2.1751)	(0.7594)	(-1.7134)	(-0.0958)	(-1.5550)
Leverage	0.0383	0.0194**	0.0501	0.0135	0.0316	0.0166
	(0.8209)	(2.1613)	(0.7977)	(1.1337)	(0.4797)	(1.3248)
Run-up	0.0145	-0.0052	0.0257	-0.0063	0.0070	-0.0056
	(1.2032)	(-1.4794)	(1.6065)	(-1.4960)	(0.3942)	(-1.0682)
Sigma	-0.5252	0.2626*	-0.7899	0.2408	-0.2906	0.3076
	(-0.9885)	(1.9537)	(-1.0691)	(1.2913)	(-0.3892)	(1.6204)
Ln (Deal Value)	-0.0032	-0.0020	-0.0006	-0.0026*	-0.0056	-0.0005
	(-0.5581)	(-1.5777)	(-0.0699)	(-1.7197)	(-0.6852)	(-0.3398)
Relative Size	0.0042	0.0044***	0.0020	0.0046***	0.0074	0.0043
	(0.9237)	(2.9718)	(0.3429)	(2.6783)	(0.9630)	(1.6418)
Tender	-0.0030	0.0098*	-0.0010	0.0109	-0.0047	0.0036
	(-0.1300)	(1.6599)	(-0.0305)	(1.6388)	(-0.1430)	(0.6835)
Hostile	-0.0036	-0.0183**	0.0309	-0.0231**	-0.0436	-0.0120
	(-0.0825)	(-2.2018)	(0.5236)	(-2.1356)	(-0.6616)	(-1.1841)
Relatedness	-0.0042	0.0030				
	(-0.3383)	(1.4011)				
Pub. Target * All-Cash	0.0199	-0.0094**	0.0120	-0.0091	0.0219	-0.0085*
	(0.8414)	(-2.4059)	(0.3538)	(-1.6220)	(0.6632)	(-1.7503)
Pub. Target * Pmt. incl. Stock	0.0164	-0.0404***	0.0179	-0.0401***	0.0094	-0.0418***
	(0.9615)	(-11.9898)	(0.7269)	(-8.1518)	(0.3763)	(-9.1684)
Priv. Target * All-Cash	0.0095	0.0001	0.0225	0.0086	-0.0038	-0.0117**
	(0.3847)	(0.0100)	(0.6807)	(1.2254)	(-0.1064)	(-1.9936)
Priv. Target * Pmt. incl. Stock	0.0357**	-0.0014	0.0578**	-0.0015	0.0164	-0.0016
	(1.9886)	(-0.3738)	(2.1245)	(-0.2598)	(0.6675)	(-0.3325)
Sub. Target * All-Cash	-0.0278	0.0031	-0.0119	0.0017	-0.0470	0.0038
	(-1.2979)	(0.8936)	(-0.4030)	(0.3429)	(-1.5122)	(0.7956)
Foreign Target	-0.0449**	-0.0044	-0.0340	-0.0031	-0.0527**	-0.0052
	(-2.5330)	(-1.4331)	(-1.3504)	(-0.7344)	(-2.0566)	(-1.1377)
Multiple Bidders	0.0077	0.0065	0.0106	0.0115	0.0087	-0.0059
	(0.2738)	(0.7265)	(0.2628)	(1.2350)	(0.2053)	(-0.8725)
Ln (Acq. Industry M&A)	0.0033	-0.0018**	0.0002	-0.0013	0.0080	-0.0014
	(0.7619)	(-2.0618)	(0.0454)	(-1.2579)	(1.3547)	(-1.1819)
Ln (Targ. Industry M&A)	-0.0014	0.0004	-0.0041	0.0003		

	(-0.3447)	(0.5308)	(-0.8043)	(0.4329)		
Average Use of Specialists by Industry Peers	0.3995***		0.4115***		0.3815***	
	(10.4147)		(7.3057)		(7.3208)	
Average Use of Specialists by Geographic Peers	0.6754***		0.6811***		0.6645***	
	(31.5351)		(24.6627)		(21.3094)	
Intercept	-0.0343	0.0774***	-0.0726	0.0726***	0.0015	0.0762***
	(-0.2673)	(3.7568)	(-0.4107)	(2.6881)	(0.0090)	(2.8894)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
N	6119	6119	2855	2855	3264	3264
Hansen J Chi2	-	0.101	-	0.089	-	0.099
p-value	-	*0.750*	-	*0.766*	-	*0.753*
Instrument Strength Test		690.282		412.182		316.169
F	36.282***	8.946***	25.158***	4.707***	18.413***	6.161***

Table B.IV

Constructing the ARCA Index Based on Different Industry Classification

This table examines the impact of industry specialist advisors on acquirer CARs for the full sample as well as the cross- and same-industry deal subsamples, using the ARCA index constructed based on different industry classifications. In Panel A, the ARCA value is measured based on the 2-digit SIC industry code; in Panel B, the ARCA value is calculated based on the Fama-French 12 industry classification. All estimates are taken from the 2SLS regression model, with control variables the same as those shown in Table 3. For the sake of brevity, we report only the coefficient estimates on the industry specialist dummy variable (instrumented) and regression diagnostics. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

Panel A: Using the ARCA Index Constructed Based on the 2-digit SIC industry code

	(1)	(2)	(3)
Industry Specialist - 2-digit SIC (Instrumented)	0.0113	0.0292**	0.0023
	(1.4938)	(2.2654)	(0.2772)
Advisor Reputation	YES	YES	YES
Deal Characteristics	YES	YES	YES
Acquirer Characteristics	YES	YES	YES
Industry Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
N	6121	2083	4038
Hansen J Chi2	0.235	1.436	1.575
p-value	*0.628*	*0.231*	*0.210*
Instrument Strength Test	284.153	90.495	200.108
F	9.061***	4.200***	7.126***

Panel B: Using the ARCA Index Constructed Based on the Fama-French 12 industry classification

	(1)	(2)	(3)
Industry Specialist - Fama-French 12 (Instrumented)	0.0169	0.0703*	0.0034
	(1.2996)	(1.6540)	(0.2895)
Advisor Reputation	YES	YES	YES
Deal Characteristics	YES	YES	YES
Acquirer Characteristics	YES	YES	YES
Industry Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
N	6121	1393	4728
Hansen J Chi2	0.723	1.223	2.423
p-value	*0.395*	*0.269*	*0.120*
Instrument Strength Test	86.978	9.978	92.936
F	8.730***	3.689***	6.995***

Figure 1
Distribution of the ARCA value

This figure shows the distribution of the ARCA value for acquirer advisors over the sample period between January 1985 and December 2010. The ARCA value is computed based on the value of M&A deals advised by an advisor in the acquirer and the target industry over the last 5 years prior to the announcement date, respectively. The industry is defined by 3-digit SIC code. Figure 1a (1b) depicts the distribution for the ARCA value based on the acquirer advisors' activities in the acquirer (target) industry.

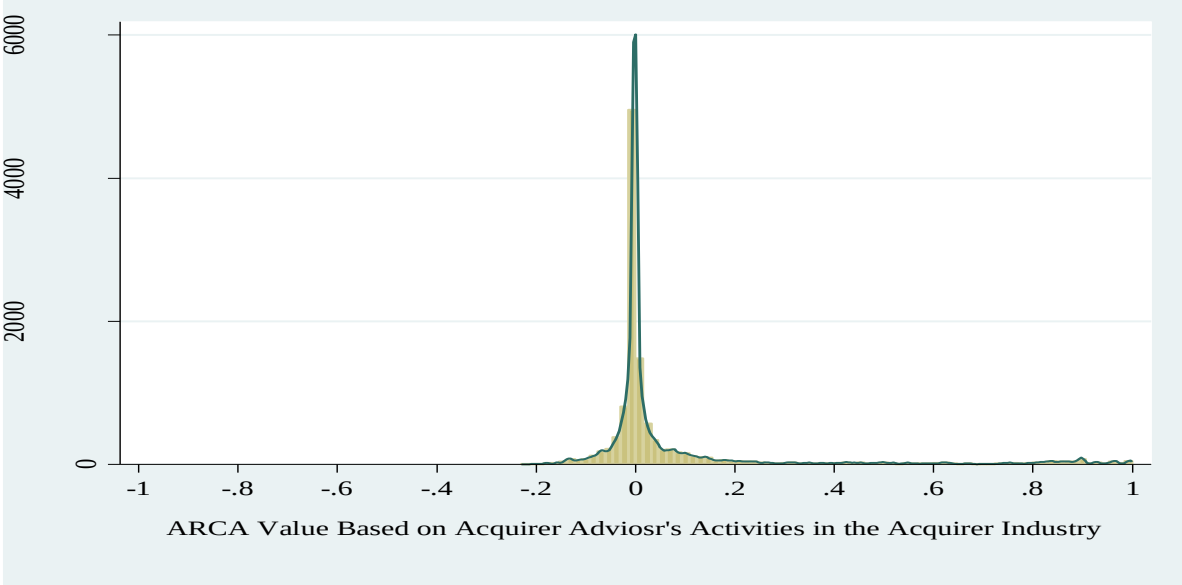

Figure 1a

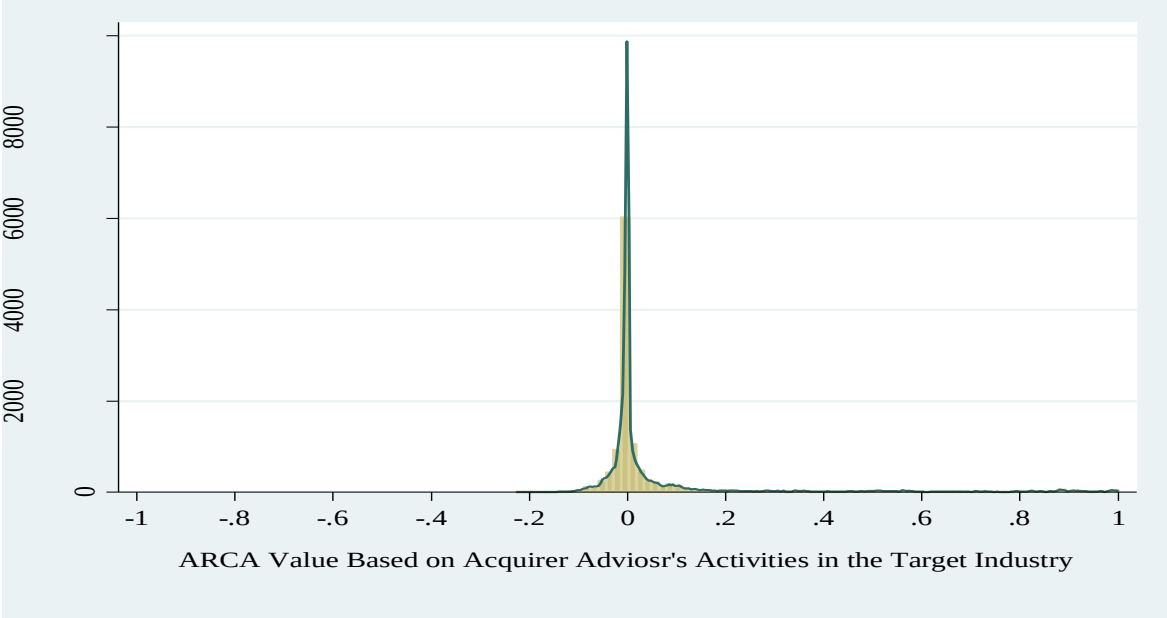

Figure 1b

Table 1
Sample Descriptive Statistics by Type of Advisors

This table reports descriptive statistics of the key variables sorted by the type of advisors. The sample consists of 12,853 deals announced between January 1985 and December 2010, in which there is at least one investment bank advising either the acquirer or the target. The data are drawn from the Thomson Financial SDC database. Panels A to C illustrate the mean, median and number of observations ("N") for each variable for the full sample as well as for acquirer advisors with and without acquirer-industry focus. The statistics for acquirer advisors with and without target-industry focus are qualitatively similar to the results reported below but omitted for space consideration. Industry specialist advisors are classified based on the value of the ARCA index computed according to the value of deals advised by each advisor in the acquirer or target industry over 5 years prior to the announcement date. The industry is defined by 3-digit SIC code. Share price data for the bidding firms are obtained from CRSP while accounting data are downloaded from Computstat. Two-sample Wilcoxon rank-sum test is used to test the significance of differences in means and equality of medians for each variable sorted by the type of financial advisors.

	Full Sample (1)			Industry Specialists (2)			Non-industry Specialists (3)			Difference (2) – (3) in	
	Mean	Median	N	Mean	Median	N	Mean	Median	N	Mean	Median
Panel A: Deal Characteristics											
Deal Value (in $mil)	684.029	135.000	12852	810.984	151.828	6665	614.123	140.000	5355	196.861***	11.828***
Relative Size	0.451	0.192	9131	0.403	0.170	4936	0.467	0.218	3723	-0.064***	-0.048***
Public Targets	0.365	-	12852	0.385	-	6665	0.344	-	5355	0.041***	-
Private Targets	0.304	-	12852	0.310	-	6665	0.288	-	5355	0.022***	-
Subsidiary Targets	0.323	-	12852	0.297	-	6665	0.360	-	5355	-0.063***	-
Foreign Targets	0.142	-	12852	0.118	-	6665	0.154	-	5355	-0.035***	-
Relatedness	0.601	-	12852	0.613	-	6665	0.589	-	5355	0.023***	-
Tender Offer	0.092	-	12852	0.082	-	6665	0.104	-	5355	-0.022***	-
Hostile Deal	0.018	-	12852	0.015	-	6665	0.023	-	5355	-0.008***	-
All-Cash	0.276	-	12852	0.262	-	6665	0.298	-	5355	-0.036***	-
Pmt. include Stock	0.389	-	12852	0.434	-	6665	0.337	-	5355	0.097***	-
Multiple Bidders	0.040	-	12842	0.042	-	6661	0.041	-	5351	0.001	-
Acq. Ind. M&A	-2.272	-2.184	12198	-2.346	-2.215	6393	-2.194	-2.119	5027	-0.151***	-0.096***
Targ. Ind. M&A	-2.169	-2.155	12179	-2.257	-2.205	6433	-2.056	-2.045	4963	-0.201***	-0.160**

Panel B: Acquirer Characteristics											
Acquirer Size (in $mil)	6861.037	787.534	9150	7858.925	939.825	4941	6191.661	725.170	3730	1667.264***	214.655***
Tobin's Q	2.436	1.534	7840	2.552	1.511	4251	2.316	1.574	3199	0.236**	-0.063*
Run-up	0.078	0.015	9201	0.086	0.021	4969	0.069	0.008	3746	0.016	0.012***
Free Cash Flow	0.052	0.085	7812	0.049	0.077	4198	0.058	0.094	3219	-0.010**	-0.017***
Leverage	0.147	0.104	7827	0.145	0.102	4247	0.151	0.109	3194	-0.006	-0.006**
Sigma	0.028	0.023	9202	0.028	0.023	4970	0.028	0.024	3746	0.000	-0.001**
Panel C: Dependent Variables											
CAR(-1, +1)	0.003	0.000	8266	0.000	-0.003	4481	0.007	0.002	3367	-0.007***	-0.005***
Premium Offered	43.30%	35.28%	3861	43.30%	35.28%	2134	45.30%	36.43%	1513	-2.00%	-1.16%

Table 2

Industry Specialists and Acquirer CAR: Ordinary Least Squares

This table presents results from the OLS regression of the acquirer three-day CAR for the full sample as well as the cross- and same-industry deal subsamples. In each column, the main variable of interest is "Industry Specialist", which is a dummy variable equal to 1 if the acquirer advisor specializes in the acquirer or target industry; 0 otherwise. Other variables are defined in Appendix A. The t-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Full	Cross-industry	Same-industry
	(1)	(2)	(3)
Industry Specialist	-0.0003	0.0003	-0.0010
	(-0.1447)	(0.0870)	(-0.3633)
Top 8	0.0068**	0.0105**	0.0006
	(2.0048)	(2.4050)	(0.1633)
Top 8 * Pub. Target	-0.0068*	-0.0088	-0.0030
	(-1.6648)	(-1.5772)	(-0.5967)
Ln (Acquirer Size)	-0.0023***	-0.0022*	-0.0025**
	(-2.6507)	(-1.8692)	(-2.0066)
Tobin's Q	-0.0013	-0.0027***	-0.0003
	(-1.3986)	(-2.7621)	(-0.2760)
Free Cash Flow	-0.0256**	-0.0258*	-0.0266
	(-2.2535)	(-1.9304)	(-1.4512)
Leverage	0.0189**	0.0132	0.0170
	(2.1641)	(1.1219)	(1.3888)
Run-up	-0.0052	-0.0056	-0.0063
	(-1.4773)	(-1.3125)	(-1.2037)
Sigma	0.3208**	0.3038*	0.3768*
	(2.4019)	(1.6517)	(1.9609)
Ln (Deal Value)	-0.0018	-0.0025*	-0.0001
	(-1.4275)	(-1.6594)	(-0.0827)
Relative Size	0.0045***	0.0047***	0.0042
	(3.0429)	(2.6818)	(1.5679)
Tender	0.0094	0.0112*	0.0027
	(1.5894)	(1.6669)	(0.5065)
Hostile	-0.0191**	-0.0228**	-0.0123
	(-2.3527)	(-2.1417)	(-1.2456)
Relatedness	0.0027		
	(1.2659)		
Pub. Target * All-Cash	-0.0084**	-0.0079	-0.0076
	(-2.2105)	(-1.4685)	(-1.5510)
Pub. Target * Pmt. incl. Stock	-0.0401***	-0.0388***	-0.0424***
	(-11.9966)	(-8.0062)	(-9.4105)
Priv. Target * All-Cash	0.0005	0.0101	-0.0114**
	(0.0806)	(1.4065)	(-1.9709)
Priv. Target * Pmt. incl. Stock	-0.0003	0.0009	-0.0015
	(-0.0868)	(0.1646)	(-0.3139)
Sub. Target * All-Cash	0.0036	0.0022	0.0047
	(1.0418)	(0.4502)	(0.9707)
Foreign Target	-0.0051*	-0.0044	-0.0047
	(-1.6699)	(-1.0527)	(-1.0565)
Multiple Bidders	0.0062	0.0125	-0.0067
	(0.7010)	(1.3377)	(-1.0142)
Ln (Acq. Industry M&A)	-0.0015*	-0.0012	-0.0009
	(-1.7120)	(-1.1476)	(-0.7759)
Ln (Targ. Industry M&A)	0.0004	0.0002	
	(0.6051)	(0.2669)	
Intercept	0.0716***	0.0708***	0.0644**
	(3.5173)	(2.6527)	(2.4704)
Industry Fixed Effects	YES	YES	YES
Year Fixed Effects	YES	YES	YES
N	6269	2920	3349
R^2	0.113	0.141	0.107
Adj. R^2	0.104	0.124	0.091

Table 3
Two-stage Least Square (2SLS) Regression of Acquirer CAR

This table reports the results of the two-stage least square regression of acquirer CAR for the full sample as well as the cross- and same-industry deal subsamples, where an acquirer's choice of an industry specialist advisor is instrumented by the average use of industry specialist advisors by the acquirer's industry and geographic peers. Advisor industry specialization is measured using the ARCA method based on the value of deals advised by an advisor in an industry over the last five years prior to the announcement date. In each model, the first column reports the first-stage regression results, where the dependent variable is a dummy variable equal to 1 if an acquirer hires an industry specialist advisor, and 0 otherwise; whereas the second column reports the results for the second-stage regression of acquirer CAR over the event window (-1, +1). All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Full		Cross-industry		Same-industry	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist (Instrumented)		0.0063		0.0140**		-0.0031
		(1.4827)		(2.5505)		(-0.5432)
Top 8	0.0287*	0.0060*	0.0427*	0.0090**	0.0183	0.0004
	(1.8319)	(1.8024)	(1.9452)	(2.0774)	(0.8530)	(0.1034)
Top 8 * Pub. Target	-0.0226	-0.0068*	0.0004	-0.0079	-0.0404	-0.0041
	(-1.0748)	(-1.6805)	(0.0143)	(-1.4097)	(-1.4091)	(-0.8111)
Ln (Acquirer Size)	0.0147***	-0.0026***	0.0067	-0.0026**	0.0264***	-0.0025*
	(2.8784)	(-2.8775)	(1.0060)	(-2.1621)	(3.6351)	(-1.9280)
Tobin's Q	0.0045	-0.0012	0.0045	-0.0027***	0.0038	-0.0003
	(1.5929)	(-1.3455)	(0.9972)	(-2.7580)	(1.0410)	(-0.2543)
Free Cash Flow	0.0450	-0.0246**	0.0586	-0.0242*	0.0307	-0.0267
	(1.3459)	(-2.1160)	(1.3476)	(-1.7128)	(0.6051)	(-1.4672)
Leverage	0.0276	0.0204**	0.0610	0.0136	0.0136	0.0184
	(0.6441)	(2.2765)	(0.9833)	(1.1451)	(0.2207)	(1.4579)
Run-up	0.0042	-0.0053	-0.0016	-0.0057	0.0088	-0.0058
	(0.3334)	(-1.4987)	(-0.0959)	(-1.3746)	(0.4964)	(-1.1129)
Sigma	-0.1138	0.2878**	0.0957	0.2236	-0.2253	0.3665*
	(-0.2301)	(2.1440)	(0.1331)	(1.2106)	(-0.3236)	(1.9041)
Ln (Deal Value)	-0.0111**	-0.0019	-0.0109	-0.0025*	-0.0146*	-0.0005
	(-2.0372)	(-1.5443)	(-1.5085)	(-1.6522)	(-1.7963)	(-0.3120)
Relative Size	0.0095**	0.0043***	0.0075	0.0045***	0.0131**	0.0041
	(2.2096)	(2.9020)	(1.4815)	(2.6316)	(1.9617)	(1.5516)
Tender	0.0092	0.0095	-0.0214	0.0112*	0.0418	0.0034
	(0.4081)	(1.6170)	(-0.7354)	(1.6832)	(1.1668)	(0.6297)
Hostile	-0.0096	-0.0182**	0.0079	-0.0226**	-0.0158	-0.0119
	(-0.2231)	(-2.1925)	(0.1375)	(-2.0895)	(-0.2360)	(-1.1614)
Relatedness	-0.0091	0.0031				
	(-0.7878)	(1.4555)				
Pub. Target * All-Cash	0.0029	-0.0086**	-0.0196	-0.0086	0.0234	-0.0075
	(0.1230)	(-2.2129)	(-0.6270)	(-1.5582)	(0.6547)	(-1.4995)
Pub. Target * Pmt. incl. Stock	0.0272	-0.0404***	0.0102	-0.0399***	0.0400	-0.0417***
	(1.6035)	(-12.0070)	(0.4179)	(-8.1508)	(1.6293)	(-9.1349)
Priv. Target * All-Cash	-0.0130	0.0002	-0.0615*	0.0099	0.0288	-0.0115**
	(-0.5599)	(0.0355)	(-1.8887)	(1.3865)	(0.8899)	(-1.9627)
Priv. Target * Pmt. incl. Stock	0.0469***	-0.0015	0.0385	-0.0009	0.0585**	-0.0017
	(2.6923)	(-0.3984)	(1.4913)	(-0.1651)	(2.4286)	(-0.3479)
Sub. Target * All-Cash	-0.0266	0.0031	-0.0422	0.0020	-0.0096	0.0041
	(-1.3556)	(0.8768)	(-1.6430)	(0.4050)	(-0.3287)	(0.8408)
Foreign Target	-0.0329**	-0.0046	-0.0189	-0.0036	-0.0464*	-0.0050
	(-2.0359)	(-1.5163)	(-0.8498)	(-0.8472)	(-1.9439)	(-1.1161)
Multiple Bidders	-0.0005	0.0064	0.0520	0.0110	-0.0592	-0.0060
	(-0.0204)	(0.7227)	(1.3712)	(1.1751)	(-1.5016)	(-0.8999)
Ln (Acq. Industry M&A)	0.0001	-0.0017*	-0.0058	-0.0012	0.0066	-0.0013
	(0.0360)	(-1.9500)	(-1.2455)	(-1.1794)	(1.1349)	(-1.0472)
Ln (Targ. Industry M&A)	-0.0016	0.0004	-0.0031	0.0003		
	(-0.4060)	(0.5559)	(-0.6531)	(0.3902)		
Average Use of Specialists	0.6320***		0.6551***		0.5971***	

by Industry Peers						
	(20.2220)		(14.1635)		(13.7676)	
Average Use of Specialists by Geographic Peers	0.9187***		0.9098***		0.9230***	
	(62.0820)		(46.7922)		(39.6664)	
Intercept	-0.3281***	0.0773***	-0.1523	0.0730***	-0.5094***	0.0714***
	(-2.8858)	(3.7570)	(-0.9466)	(2.7197)	(-3.3960)	(2.7153)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
N	6121	6121	2856	2856	3265	3265
Hansen J Chi2	-	0.237	-	0.031	-	0.173
p-value	-	*0.626*	-	*0.861*	-	*0.678*
Instrument Strength Test	-	2735.866	-	1589.779	-	1090.893
F	138.019***	9.031***	78.970***	4.741***	69.601***	6.184***

Table 4
Industry Market Share Approach versus ARCA Index

Panel A of this Table shows the pairwise correlation between top-8, industry specialist advisors defined based on industry market share (IMS) approach and the ARCA value for the full sample. Panel B of this table reports the results of the two-stage least square regression of acquirer CAR for the full sample as well as the cross- and same-industry deal subsamples, using industry specialists defined as those advisors in the top quartile of market share in the acquirer or target industry (*Industry Specialist – IMS*). Since the *Industry Specialist - IMS* and *top-8 advisor* variables are collinear, we use the orthogonalization process to capture the unique impact of industry specialization, uncorrelated with the impact of advisor reputation. In each model, the first column reports the first-stage regression results, where the dependent variable is a dummy variable equal to 1 if an acquirer hires an industry specialist advisor in the top quartile of market share in the acquirer or target industry, and 0 otherwise. An acquirer's choice of an industry specialist advisor is instrumented by the average use of industry specialist advisors by the acquirer's industry and geographic peers. The second column reports the results for the second-stage regression of acquirer CAR over the event window (-1, +1). All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

Panel A: Pairwise Correlation

	Top 8	Industry Specialist - Market Share	Industry Specialist - ARCA
Top 8	1.0000		
Industry Specialist - IMS	0.4829	1.0000	
Industry Specialist - ARCA	0.0353	0.5025	1.0000

Panel B: 2SLS Regressions of Acquirer CAR on the Use of Industry Specialists with Top-quartile Industry Market Share

	Full		Cross-industry		Same-industry	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
	(1)	(2)	(3)	(4)	(5)	(6)
Ortho. Industry Specialist – IMS (Instrumented)		0.0067*		0.0136***		-0.0020
		(1.7568)		(2.7328)		(-0.4375)
Ortho. Top 8	-0.0671***	0.0030	-0.0747***	0.0054**	-0.0566**	-0.0008
	(-3.5436)	(1.4937)	(-2.9685)	(2.2507)	(-2.2676)	(-0.3829)
Ortho.Top 8 * Pub. Target	-0.0473*	-0.0019	-0.0678**	-0.0019	-0.0305	-0.0005
	(-1.9590)	(-0.8926)	(-2.0151)	(-0.6795)	(-0.9122)	(-0.1756)
Ln (Acquirer Size)	0.1177***	-0.0032***	0.1131***	-0.0037***	0.1273***	-0.0024*
	(10.2911)	(-3.5036)	(7.2453)	(-2.9137)	(8.5819)	(-1.7620)
Tobin's Q	-0.0032	-0.0008	-0.0094	-0.0023**	0.0009	0.0001
	(-0.6006)	(-0.9559)	(-1.2912)	(-2.3217)	(0.1223)	(0.0541)
Free Cash Flow	-0.0301	-0.0278**	0.0386	-0.0249*	-0.0969	-0.0326*
	(-0.4724)	(-2.5493)	(0.4644)	(-1.8530)	(-0.9894)	(-1.9143)
Leverage	0.3297***	0.0217**	0.4468***	0.0127	0.1794	0.0221*
	(3.1979)	(2.4497)	(3.0093)	(1.0506)	(1.4063)	(1.7822)
Run-up	-0.0591**	-0.0056	-0.0626*	-0.0051	-0.0561*	-0.0076
	(-2.3497)	(-1.6166)	(-1.7266)	(-1.2111)	(-1.7028)	(-1.4958)
Sigma	2.3220**	0.2973**	1.2097	0.2964	3.1382**	0.3439*
	(2.3709)	(2.3076)	(0.8256)	(1.6142)	(2.3653)	(1.8927)
Ln (Deal Value)	0.1492***	-0.0027*	0.1365***	-0.0041**	0.1491***	-0.0002
	(12.5867)	(-1.8490)	(8.2682)	(-2.2962)	(9.5945)	(-0.1004)
Relative Size	0.0029	0.0037***	0.0039	0.0038***	0.0026	0.0039
	(0.3508)	(5.4037)	(0.4410)	(5.9658)	(0.1646)	(1.4903)
Tender	-0.0531	0.0095	-0.1802***	0.0113*	0.0990	0.0051
	(-0.9860)	(1.6360)	(-2.5844)	(1.6663)	(1.4197)	(0.9483)
Hostile	-0.0718	-0.0173**	0.0131	-0.0200*	-0.1732	-0.0132
	(-0.7793)	(-2.1466)	(0.1064)	(-1.9229)	(-1.3510)	(-1.3139)
Relatedness	-0.0487*	0.0030				
	(-1.9454)	(1.4117)				
Pub. Target * All-Cash	-0.0051	-0.0124***	0.0473	-0.0140***	-0.0483	-0.0103**
	(-0.1071)	(-3.2126)	(0.6901)	(-2.7273)	(-0.7184)	(-2.1836)
Pub. Target * Pmt. incl. Stock	-0.0474	-0.0430***	-0.0636	-0.0435***	-0.0294	-0.0429***
	(-1.4482)	(-14.3226)	(-1.2915)	(-9.9358)	(-0.6664)	(-10.2931)
Priv. Target * All-Cash	-0.0888	0.0009	-0.1798**	0.0088	-0.0009	-0.0094*

	(-1.6046)	(0.1414)	(-2.4149)	(1.2100)	(-0.0134)	(-1.6505)
Priv. Target * Pmt. incl. Stock	-0.0585*	-0.0018	-0.0200	-0.0036	-0.0730	-0.0011
	(-1.6528)	(-0.4707)	(-0.3674)	(-0.6224)	(-1.5776)	(-0.2185)
Sub. Target * All-Cash	-0.0320	0.0035	-0.0445	0.0020	-0.0143	0.0048
	(-0.7848)	(1.0098)	(-0.7980)	(0.3993)	(-0.2415)	(1.0260)
Foreign Target	-0.1045***	-0.0047	-0.1378***	-0.0030	-0.0840*	-0.0051
	(-3.1031)	(-1.5926)	(-2.7935)	(-0.7073)	(-1.8036)	(-1.1715)
Multiple Bidders	-0.1876***	0.0068	-0.1171	0.0108	-0.2126***	-0.0053
	(-2.6244)	(0.7444)	(-1.2438)	(1.0885)	(-2.6121)	(-0.8007)
Ln (Acq. Industry M&A)	0.0146	-0.0016*	-0.0054	-0.0008	0.0567***	-0.0012
	(1.4254)	(-1.7124)	(-0.4440)	(-0.7254)	(4.3430)	(-0.9844)
Ln (Targ. Industry M&A)	0.0165*	0.0003	0.0051	0.0005		
	(1.8668)	(0.4115)	(0.4769)	(0.6225)		
Average Use of Specialists by Industry Peers	0.6062***		0.6605***		0.5683***	
	(7.5571)		(5.1849)		(5.9899)	
Average Use of Specialists by Geographic Peers	1.1727***		1.1326***		1.2301***	
	(26.1343)		(17.9732)		(20.2610)	
Intercept	-5.3755***	0.1022***	-5.1062***	0.1291***	-5.5065***	0.0547
	(-21.8128)	(3.3942)	(-14.8774)	(3.3976)	(-16.9265)	(1.6096)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
N	6259	6259	2874	2874	3385	3385
Hansen J Chi2	-	0.375	-	0.009	-	0.406
p-value	-	*0.541*	-	*0.925*	-	*0.524*
Instrument Strength Test	-	404.955	-	204.663	-	264.863
F	56.749***	9.292***	29.715***	5.229***	36.790***	6.099***

Table 5
Quartile Analysis of Acquirer CAR

This table estimates the relation between industry specialist advisors and acquirer CAR for each quartile of investment bank size for a subsample of cross-industry deals using an IV approach. The investment bank size is measured on the basis of the value of M&A transactions advised by each bank over the last year prior to the announcement date. An acquirer's choice of an industry specialist advisor is instrumented by the average use of industry specialist advisors by the acquirer's industry and geographic peers. The first-stage regression results for the choice of an industry specialist are not reported here for brevity. The control variables are the same as those reported in Table 3, except that the *top-8 advisor* variable and its interaction with the *public target* dummy variable are not included given that the investment bank size is controlled for. For the sake of brevity, the table reports only the estimates for the main variable of interest, *Industry Specialist*, and the corresponding regression diagnostics. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Subsample: Cross-industry Deals					
	Industry Specialist (Instrumented)	N	Hansen J Chi2	*p-value*	Instrument Strength Test	F
Q1	0.0126	607	1.033	*0.309*	186.064	3.328***
	(0.9628)					
Q2	0.0321***	662	0.233	*0.630*	327.298	3.850***
	(3.1621)					
Q3	0.0097	648	1.177	*0.278*	394.668	2.366***
	(1.0727)					
Q4	-0.0043	655	1.083	*0.298*	258.553	2.594***
	(-0.3349)					

Table 6
Continuous Measures of Advisor Industry Specialization

This table re-conducts acquirer CAR analysis for the full sample as well as the cross- and same-industry subsamples, using continuous measures of advisor industry Specialization. All estimates are taken from the 2SLS regression models, with the first-stage regression results omitted for the sake of brevity. Columns (1) through (3) present the results from the second-stage regression of the acquirer 3-day CAR on the level of an advisor's specialization in the target firm's industry (*Specialization Level in Target Industry*); columns (4) through (6) replicate the analysis using the acquirer advisor's specializing level in the acquirer's own industry (*Specialization Level in Acquirer Industry*). In columns (7) through (9), we report the results using the first principal component (*PC1*) of our two specialization measures. All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Specialization Level in Target Industry			Specialization Level in Acquirer Industry			PC1		
	Full	Cross-industry	Same-industry	Full	Cross-industry	Same-industry	Full	Cross-industry	Same-industry
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Specialization Level in Target Industry	0.2342*	0.2522**	-0.0858						
	(1.8883)	(2.4524)	(-0.1531)						
Specialization Level in Acquirer Industry				0.1861	0.1254	0.3011			
				(1.2330)	(1.1489)	(0.8684)			
PC1							0.0075	0.0280**	-0.0035
							(1.3567)	(2.4596)	(-0.5962)
Top 8	0.0216**	0.0163***	-0.0078	0.0207	0.0173*	0.0264	0.0099**	0.0177***	-0.0018
	(2.5218)	(3.2440)	(-0.1464)	(1.5076)	(1.9522)	(0.8614)	(2.0748)	(3.1144)	(-0.3364)
Top 8 * Pub. Target	-0.0050	-0.0069	-0.0049	-0.0051	-0.0089	0.0030	-0.0065	-0.0082	-0.0044
	(-1.0693)	(-1.1610)	(-0.6273)	(-1.1957)	(-1.4922)	(0.2998)	(-1.6111)	(-1.4087)	(-0.8563)
Ln (Acquirer Size)	-0.0020*	-0.0010	-0.0025*	-0.0022*	-0.0019	-0.0030	-0.0023**	-0.0015	-0.0026**
	(-1.8220)	(-0.7359)	(-1.7274)	(-1.9556)	(-1.3409)	(-1.5298)	(-2.5390)	(-1.1097)	(-1.9900)
Tobin's Q	-0.0017*	-0.0031***	-0.0000	-0.0013	-0.0024**	-0.0011	-0.0013	-0.0026***	-0.0002
	(-1.8533)	(-3.2291)	(-0.0106)	(-1.5121)	(-2.3723)	(-0.7349)	(-1.4295)	(-2.7498)	(-0.1976)
Free Cash Flow	-0.0268**	-0.0227	-0.0246	-0.0300**	-0.0237*	-0.0424	-0.0254**	-0.0233	-0.0258
	(-2.1723)	(-1.4507)	(-1.0744)	(-2.3814)	(-1.6630)	(-1.6094)	(-2.1879)	(-1.5782)	(-1.4126)
Leverage	0.0318***	0.0160	0.0125	0.0373**	0.0236	0.0466	0.0241**	0.0215*	0.0165
	(2.7381)	(1.2392)	(0.3134)	(2.0805)	(1.5818)	(1.2912)	(2.4994)	(1.6725)	(1.2846)
Run-up	-0.0066*	-0.0087*	-0.0056	-0.0063*	-0.0061	-0.0099	-0.0056	-0.0071*	-0.0057
	(-1.7025)	(-1.8660)	(-0.9890)	(-1.7490)	(-1.4640)	(-1.2733)	(-1.5811)	(-1.6902)	(-1.0842)
Sigma	0.4616***	0.3105	0.2794	0.4982**	0.3767*	0.6922	0.3330**	0.3657*	0.3447*
	(2.6776)	(1.5937)	(0.4461)	(2.3096)	(1.6633)	(1.5872)	(2.4128)	(1.8751)	(1.7513)
Ln (Deal Value)	0.0013	-0.0012	-0.0021	0.0009	-0.0019	0.0067	-0.0012	-0.0015	-0.0009
	(0.5506)	(-0.6880)	(-0.1887)	(0.4133)	(-1.2687)	(0.7761)	(-1.0114)	(-0.9944)	(-0.5265)
Relative Size	0.0035**	0.0047***	0.0048	0.0035**	0.0045***	0.0006	0.0041***	0.0046***	0.0042
	(2.2650)	(2.8411)	(0.8169)	(2.0801)	(2.5841)	(0.1266)	(2.8100)	(2.6938)	(1.5905)
Tender	0.0045	0.0095	0.0060	0.0074	0.0125*	-0.0066	0.0088	0.0114*	0.0039
	(0.6327)	(1.3624)	(0.3067)	(1.3937)	(1.7046)	(-0.4833)	(1.5259)	(1.6833)	(0.7129)

Hostile	-0.0181**	-0.0228**	-0.0120	-0.0202**	-0.0258**	-0.0083	-0.0186**	-0.0249**	-0.0119
	(-2.1197)	(-2.1047)	(-1.1329)	(-2.1599)	(-2.1466)	(-0.6939)	(-2.2172)	(-2.2396)	(-1.1590)
Relatedness	-0.0099			-0.0041			0.0007		
	(-1.3561)			(-0.6228)			(0.2266)		
Pub. Target * All-Cash	-0.0105**	-0.0115*	-0.0078	-0.0102**	-0.0099	-0.0075	-0.0091**	-0.0106*	-0.0075
	(-2.2931)	(-1.9006)	(-1.3919)	(-2.0114)	(-1.6085)	(-1.0433)	(-2.2549)	(-1.7662)	(-1.5059)
Pub. Target * Pmt. incl. Stock	-0.0482***	-0.0457***	-0.0388*	-0.0472***	-0.0426***	-0.0551***	-0.0418***	-0.0442***	-0.0410***
	(-8.2077)	(-7.6504)	(-1.8500)	(-7.4884)	(-7.4946)	(-3.3042)	(-11.8285)	(-8.1921)	(-8.5272)
Priv. Target * All-Cash	0.0012	0.0123*	-0.0114*	0.0030	0.0114	-0.0076	0.0008	0.0119	-0.0117**
	(0.1893)	(1.6675)	(-1.8770)	(0.3741)	(1.4262)	(-0.8593)	(0.1236)	(1.5868)	(-1.9972)
Priv. Target * Pmt. incl. Stock	-0.0099	-0.0007	0.0027	-0.0085	-0.0027	-0.0162	-0.0030	-0.0022	-0.0008
	(-1.5433)	(-0.1217)	(0.0861)	(-1.1578)	(-0.4245)	(-0.8621)	(-0.7414)	(-0.3693)	(-0.1505)
Sub. Target * All-Cash	0.0032	0.0027	0.0041	0.0033	0.0015	0.0054	0.0030	0.0020	0.0041
	(0.8528)	(0.5208)	(0.8366)	(0.8513)	(0.2982)	(0.8430)	(0.8458)	(0.3954)	(0.8425)
Foreign Target	0.0001	-0.0040	-0.0077	0.0005	-0.0018	0.0053	-0.0037	-0.0025	-0.0056
	(0.0119)	(-0.9051)	(-0.4012)	(0.1005)	(-0.4156)	(0.4051)	(-1.1888)	(-0.5727)	(-1.1905)
Multiple Bidders	0.0058	0.0092	-0.0062	0.0064	0.0108	-0.0047	0.0065	0.0100	-0.0060
	(0.6252)	(0.8970)	(-0.8498)	(0.7091)	(1.2072)	(-0.5778)	(0.7246)	(1.0610)	(-0.8824)
Ln (Acq. Industry M&A)	-0.0007	-0.0004	-0.0024	-0.0002	-0.0006	0.0037	-0.0014	-0.0004	-0.0017
	(-0.6673)	(-0.3839)	(-0.3358)	(-0.1581)	(-0.4258)	(0.6095)	(-1.5239)	(-0.3834)	(-1.2006)
Ln (Targ. Industry M&A)	0.0024*	0.0014		0.0017	0.0006		0.0008	0.0009	
	(1.8413)	(1.4694)		(1.1750)	(0.6127)		(0.9527)	(1.0213)	
Intercept	0.0189	0.0202	0.0972	0.0260	0.0502	-0.0359	0.0683***	0.0492	0.0777***
	(0.4588)	(0.5215)	(0.5757)	(0.6032)	(1.4878)	(-0.2737)	(3.1877)	(1.6309)	(2.7291)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES	YES	YES	YES
N	6121	2856	3265	6121	2856	3265	6121	2856	3265
Hansen J Chi2	0.394	0.086	0.015	0.643	0.070	2.599	0.621	0.010	0.095
p-value	0.530	0.769	0.904	0.423	0.791	0.107	0.431	0.921	0.758
Instrument Strength Test	8.100	13.607	0.294	11.603	12.898	0.927	130.684	63.749	73.555
F	7.133***	4.309***	6.089***	7.405***	4.437***	3.623***	8.845***	4.549***	6.212***

Table 7

Other Measures of Target Information Asymmetry

This table examines the impact of advisor industry specialization on the acquirer CAR for the sample split based on other measures of target information asymmetry for the period 1985-2010. All estimates are taken from the 2SLS regression model, with the first-stage results omitted for brevity. The IVs are the same as those used in Table 3. Panel A reports the results from the second-stage regression of acquirer CAR on three industry specialization measures (i.e., the industry specialist dummy variable; the acquirer advisor's specialization level in the target's industry and its specialization level in the acquirer's industry), for the sample split based on whether the target firm has above- or below-mean idiosyncratic volatility. The analysis here is restricted to public acquisitions for which the data on target share price are available. Panel B repeats the analysis for the sample split based on whether the acquirer has past acquisition experience. All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

Panel A: Target information asymmetry measured by idiosyncratic return volatility

	Above-mean Volatility			Below-mean Volatility		
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist (Dummy Variable)	0.0068			0.0011		
	(1.4399)			(0.1198)		
Specialization Level in the Targ. Industry		0.2617**			0.2057	
		(1.9817)			(0.7464)	
Specialization Level in the Acq. Industry			0.2186			-0.0600
			(1.1768)			(-0.3984)
Top 8	0.0035	0.0204**	0.0200	0.0029	0.0216	-0.0037
	(1.1857)	(2.3051)	(1.2917)	(0.6760)	(0.8586)	(-0.2166)
Ln (Acquirer Size)	-0.0038***	-0.0034***	-0.0036***	0.0098***	0.0119***	0.0090***
	(-3.8498)	(-2.8472)	(-2.9629)	(6.1209)	(3.5047)	(3.5242)
Tobin's Q	-0.0011	-0.0015	-0.0011	-0.0013	-0.0021	-0.0016
	(-1.1353)	(-1.6242)	(-1.2990)	(-0.7361)	(-0.9092)	(-0.8142)
Free Cash Flow	-0.0250**	-0.0273**	-0.0324**	0.0585*	0.0627*	0.0590*
	(-2.1390)	(-2.1749)	(-2.4174)	(1.6818)	(1.6762)	(1.6743)
Leverage	0.0200**	0.0327**	0.0372*	0.0384**	0.0515*	0.0293
	(1.9938)	(2.5205)	(1.8506)	(2.0165)	(1.8278)	(0.9566)
Run-up	-0.0036	-0.0048	-0.0047	-0.0196**	-0.0230**	-0.0183*
	(-0.9490)	(-1.1482)	(-1.2154)	(-2.1381)	(-2.1730)	(-1.8382)
Sigma	0.2743*	0.4667**	0.5067**	0.2022	0.2819	0.0695
	(1.8647)	(2.4818)	(2.1146)	(0.6209)	(0.7149)	(0.1446)
Ln (Deal Value)	-0.0023	0.0016	0.0014	-0.0149***	-0.0142***	-0.0149***
	(-1.5295)	(0.5556)	(0.4995)	(-8.1069)	(-5.9708)	(-7.9075)
Relative Size	0.0042**	0.0042**	0.0039**	0.0107***	0.0058	0.0122***
	(2.3758)	(2.3214)	(2.0247)	(5.1900)	(0.8409)	(2.9924)
Tender	-0.0003	-0.0059	-0.0033	0.0051	0.0022	0.0056
	(-0.0565)	(-0.9013)	(-0.7277)	(0.7492)	(0.2543)	(0.7950)
Hostile	0.0039	-0.0121	-0.0062	-0.0006	-0.0058	-0.0006
	(1.5861)	(-1.4068)	(-0.6567)	(-0.1395)	(-0.6959)	(-0.1480)
Relatedness	-0.0002***	-0.0003***	-0.0003***	-0.0002***	-0.0003**	-0.0002**
	(-7.2336)	(-5.6350)	(-3.9321)	(-3.7637)	(-2.5593)	(-2.2916)
Pmt. incl. Stock	-0.0209*	-0.0237**	-0.0268*	-0.0033	-0.0024	-0.0035
	(-1.8322)	(-1.9917)	(-1.8097)	(-0.3184)	(-0.2254)	(-0.3420)
Foreign Target	-0.0026	0.0036	0.0044	-0.0134	-0.0127	-0.0134
	(-0.7977)	(0.7194)	(0.6632)	(-1.1120)	(-0.9876)	(-1.0760)
Multiple Bidders	0.0095	0.0070	0.0091	-0.0117	-0.0074	-0.0123
	(0.8429)	(0.5678)	(0.7764)	(-1.3646)	(-0.7279)	(-1.3817)
Ln (Acq. Industry M&A)	-0.0016	-0.0005	-0.0001	-0.0014	-0.0005	-0.0023
	(-1.6230)	(-0.3939)	(-0.0596)	(-0.7371)	(-0.1834)	(-0.7761)
Ln (Targ. Industry M&A)	0.0010	0.0031**	0.0027	-0.0021	-0.0003	-0.0021
	(1.2075)	(2.2466)	(1.4335)	(-1.3523)	(-0.0850)	(-1.3220)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
N	4982	4982	4982	1139	1139	1139
Hansen J Chi2	0.356	0.176	0.025	0.086	0.218	1.359
p-value	*0.551*	*0.675*	*0.874*	*0.769*	*0.640*	*0.244*
Instrument Strength Test	2321.544	7.345	9.174	355.860	1.810	1.625
F	4.206***	3.447***	3.515***	6.719***	5.023***	6.316***

Panel B: Target information asymmetry measured by acquirer past acquisition experience in the target's industry

	Without Prior Experience			With Prior Experience		
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist (Dummy Variable)	0.0079*			0.0142		
	(1.7219)			(1.3952)		
Specialization Level in the Targ. Industry		0.2168**			-0.2874	
		(1.9616)			(-0.0266)	
Specialization Level in the Acq. Industry			0.1438			-0.3514
			(1.1174)			(-1.1096)
Top 8	0.0057	0.0171***	0.0156	0.0053	-0.0320	-0.0423
	(1.5506)	(2.6811)	(1.4481)	(0.8545)	(-0.0225)	(-0.9623)
Top 8 * Pub. Target	-0.0076*	-0.0073	-0.0073	-0.0034	-0.0076	-0.0071
	(-1.6582)	(-1.4745)	(-1.5654)	(-0.4505)	(-0.0626)	(-0.5371)
Ln (Acquirer Size)	-0.0031***	-0.0018	-0.0023*	0.0028	0.0029	0.0019
	(-3.2776)	(-1.4538)	(-1.7838)	(1.3911)	(0.7903)	(0.5389)
Tobin's Q	-0.0024***	-0.0029***	-0.0024***	0.0004	0.0012	0.0013
	(-3.1898)	(-3.5739)	(-3.1548)	(0.2635)	(0.0421)	(0.6397)
Free Cash Flow	-0.0258**	-0.0278**	-0.0301**	-0.0338	-0.0255	-0.0307
	(-2.1518)	(-2.2179)	(-2.3705)	(-1.0373)	(-0.0894)	(-0.6890)
Leverage	0.0227**	0.0332***	0.0369**	0.0060	-0.0188	-0.0325
	(2.3434)	(2.8410)	(2.1427)	(0.3143)	(-0.0196)	(-0.7216)
Run-up	-0.0089**	-0.0099**	-0.0091**	0.0083	0.0103	0.0158
	(-2.3645)	(-2.4619)	(-2.4089)	(0.9379)	(0.1304)	(1.3499)
Sigma	0.3450**	0.5050***	0.4843***	-0.1770	-0.1671	-0.7163
	(2.4550)	(2.9988)	(2.6721)	(-0.5506)	(-0.1657)	(-1.0587)
Ln (Deal Value)	-0.0012	0.0011	0.0002	-0.0050**	-0.0108	-0.0142*
	(-0.8783)	(0.5299)	(0.1756)	(-2.2916)	(-0.0515)	(-1.6669)
Relative Size	0.0042***	0.0036**	0.0038**	0.0035	0.0036	0.0058
	(2.9773)	(2.4108)	(2.5458)	(0.7966)	(0.7539)	(0.9273)
Tender	0.0127*	0.0083	0.0117*	-0.0066	0.0025	0.0054
	(1.9516)	(1.1073)	(1.8999)	(-0.8634)	(0.0103)	(0.3133)
Hostile	-0.0224**	-0.0227**	-0.0230**	-0.0072	-0.0029	0.0356
	(-2.5649)	(-2.5150)	(-2.5320)	(-0.3704)	(-0.0176)	(0.6609)
Relatedness	0.0051**	-0.0052	0.0010	0.0019	0.0138	0.0126
	(2.1576)	(-0.9101)	(0.2228)	(0.4036)	(0.0299)	(0.9726)
Pub. Target * All-Cash	-0.0117***	-0.0128***	-0.0130**	0.0040	0.0060	0.0008
	(-2.5967)	(-2.5835)	(-2.4317)	(0.5775)	(0.0549)	(0.0565)
Pub. Target * Pmt. incl. Stock	-0.0400***	-0.0454***	-0.0444***	-0.0378***	-0.0229	-0.0224
	(-10.7541)	(-8.8764)	(-8.4212)	(-4.9910)	(-0.0446)	(-1.3675)
Priv. Target * All-Cash	0.0010	0.0018	0.0019	-0.0027	-0.0054	-0.0204
	(0.1502)	(0.2571)	(0.2582)	(-0.2932)	(-0.0500)	(-0.9447)
Priv. Target * Pmt. incl. Stock	0.0004	-0.0057	-0.0028	-0.0011	0.0122	0.0259
	(0.0865)	(-1.0198)	(-0.5171)	(-0.1437)	(0.0263)	(1.0007)
Sub. Target * All-Cash	0.0056	0.0056	0.0053	-0.0026	-0.0051	-0.0041
	(1.3990)	(1.3220)	(1.2858)	(-0.3632)	(-0.0732)	(-0.3830)
Foreign Target	-0.0055*	-0.0039	-0.0038	0.0012	-0.0185	-0.0269
	(-1.6713)	(-1.0484)	(-1.0543)	(0.1570)	(-0.0266)	(-1.0686)
Multiple Bidders	0.0125	0.0132	0.0144	-0.0146	-0.0127	-0.0026
	(1.2998)	(1.3569)	(1.3194)	(-1.3769)	(-0.1870)	(-0.1392)
Ln (Acq. Industry M&A)	-0.0016*	-0.0006	-0.0005	-0.0015	-0.0007	-0.0026
	(-1.7550)	(-0.5937)	(-0.4001)	(-0.5858)	(-0.0819)	(-0.4922)
Ln (Targ. Industry M&A)	0.0007	0.0022**	0.0014	-0.0003	-0.0077	-0.0096
	(0.9083)	(1.9925)	(1.2528)	(-0.1441)	(-0.0290)	(-1.0370)
Industry Fixed Effects	YES	YES	YES	YES	YES	YES
Year Fixed Effects	YES	YES	YES	YES	YES	YES
N	4949	4949	4949	1172	1172	1172
Hansen J Chi2	0.941	1.354	0.138	0.299	0.125	1.012
p-value	*0.332*	*0.245*	*0.711*	*0.585*	*0.724*	*0.314*
Instrument Strength Test	2502.087	10.422	16.462	197.174	0.001	1.408
F	7.832***	6.758***	7.138***	3.488***	2.279***	1.739***

Table 8
Two-stage Least Square (2SLS) Regression of Combined CAR

This table reports the 2SLS regression results of combined CAR on the choice of an industry specialist advisor for the subsamples of cross-industry transactions, deals in which target share price has above-average volatility, and deals where acquiring firms have no prior acquisition experience in the target's industry. In each model, the first column estimates the linear probability of an acquirer using an industry specialist advisor; whereas the second column presents the results from the second-stage regression of combined CAR, measured as the three-day cumulative abnormal returns for the acquirer and the target weighted by their respective market capitalization 11 trading days before the announcement date. An acquirer's choice of an industry specialist advisor is instrumented by the average use of industry specialist advisors by the acquirer's industry and geographic peers. All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Cross-industry		Above-mean Volatility		No Prior Experience	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist (Instrumented)		0.0029		0.0125		0.0064
		(0.3101)		(1.0679)		(0.8363)
Top 8	0.0484	-0.0018	0.0043	0.0009	0.0470	-0.0020
	(1.2699)	(-0.3394)	(0.0912)	(0.1109)	(1.5704)	(-0.4275)
Ln (Acquirer Size)	-0.0258	-0.0087***	0.0068	-0.0074**	0.0100	-0.0093***
	(-1.4297)	(-3.6288)	(0.3374)	(-2.4772)	(0.7389)	(-5.1835)
Tobin's Q	0.0093	-0.0035***	0.0118**	0.0001	0.0106	-0.0026**
	(0.9473)	(-3.3712)	(2.2331)	(0.0571)	(1.6154)	(-2.0641)
Free Cash Flow	-0.1328	0.0099	0.1456	-0.0376	0.0197	0.0014
	(-1.1366)	(0.4345)	(1.0634)	(-1.2847)	(0.1621)	(0.0632)
Leverage	0.1620	0.0070	-0.0726	0.0440	0.0027	0.0163
	(1.2333)	(0.3264)	(-0.5331)	(1.4277)	(0.0283)	(0.9159)
Run-up	-0.0275	-0.0131**	0.0057	-0.0031	-0.0188	-0.0103*
	(-0.7075)	(-2.2789)	(0.2114)	(-0.5698)	(-0.6115)	(-1.6484)
Sigma	-3.2221*	-0.1250	-2.7173**	-0.3792	-2.4160**	-0.0472
	(-1.8109)	(-0.3861)	(-2.0703)	(-1.2276)	(-2.0559)	(-0.1822)
Ln (Deal Value)	0.0102	0.0052*	-0.0149	-0.0045	-0.0122	0.0055***
	(0.5341)	(1.9255)	(-0.6008)	(-1.0468)	(-0.8566)	(2.6529)
Relative Size	0.0108	0.0082*	0.0401	0.0065	0.0388***	0.0076***
	(0.4534)	(1.7255)	(1.5995)	(1.3040)	(3.8600)	(4.7415)
Tender	0.0348	-0.0007	0.0529	0.0076	-0.0128	0.0034
	(0.7111)	(-0.1066)	(0.8455)	(0.7963)	(-0.3185)	(0.5741)
Hostile			-0.0581	0.0183**	-0.0401	0.0070
			(-1.4106)	(2.5607)	(-1.5898)	(1.6362)
Relatedness	0.0012***	-0.0004***	0.0005	-0.0003***	0.0003	-0.0003***
	(2.5947)	(-6.2557)	(0.8537)	(-3.6162)	(0.8242)	(-5.9507)
Pmt. incl. Stock	0.0455	-0.0003	-0.1563	0.0020	0.0227	-0.0008
	(0.4684)	(-0.0279)	(-1.2741)	(0.0801)	(0.3399)	(-0.0953)
Foreign Target	-0.0171	-0.0188	0.0333	-0.0118	-0.0167	-0.0281**
	(-0.1536)	(-1.1858)	(0.1434)	(-0.3691)	(-0.1700)	(-2.3721)
Multiple Bidders	-0.0040	-0.0212**	-0.0698	0.0072	-0.0428	-0.0124*
	(-0.0674)	(-2.4256)	(-0.9130)	(0.4573)	(-0.8913)	(-1.6513)
Ln (Acq. Industry M&A)	-0.0067	-0.0025	-0.0160	0.0011	-0.0035	-0.0013
	(-0.6144)	(-1.2341)	(-0.9249)	(0.3263)	(-0.3654)	(-0.6570)
Ln (Targ. Industry M&A)	0.0157	-0.0013	0.0102	0.0009	0.0060	-0.0012
	(1.4777)	(-0.9504)	(0.6486)	(0.3762)	(0.6808)	(-0.7770)
Average Use of Specialists by Industry Peers	0.6734***		0.5959***		0.6453***	
	(7.0146)		(4.9116)		(8.8676)	
Average Use of Specialists by Geographic Peers	0.9351***		1.0537***		0.9035***	
	(21.3345)		(17.6943)		(27.6810)	
Industry Fixed Effects	YES		YES		YES	
Year Fixed Effects	YES		YES		YES	
N	6121	677	3265	555	2856	1168
Hansen J Chi2	-	0.003	-	0.381	-	0.241
p-value	-	*0.958*	-	*0.537*	-	*0.624*
Instrument Strength Test	-	308.129	-	206.485	-	521.519
F	33.470***	5.853***	28.406***	3.366***	58.188***	7.340***

Table 9

Two-stage Least Square (2SLS) Regression of Takeover Premium

This table reports the 2SLS regression results of takeover premium on the choice of an industry specialist advisor for the subsamples of cross-industry transactions, deals in which target share price has above-average volatility, and deals where acquiring firms have no prior acquisition experience in the target's industry. Premium is measured by: (1) the price to earnings (PE) multiple as reported by SDC for public targets; and (2) a "proxy" premium for unlisted targets, where proxy premium is measured as the average PE multiple for a portfolio of listed targets from the same industry and year as the unlisted target. In each model, the first column estimates the linear probability of an acquirer using an industry specialist advisor; the second column estimates the second-stage regression of premium. An acquirer's choice of an industry specialist advisor instrumented by the average use of industry specialist advisors by the acquirer's industry and geographic peers. All variables are defined in Appendix A. The z-statistics statistics in parentheses are adjusted for heteroskedasticity and acquirer clustering. ***, ** and * denote significance at the 1%, 5% and 10% level, respectively. N denotes the number of observations.

	Cross-industry		Above-mean Volatility		No Prior Experience	
	1st stage	2nd stage	1st stage	2nd stage	1st stage	2nd stage
	(1)	(2)	(3)	(4)	(5)	(6)
Industry Specialist (Instrumented)		-16.6850*		-19.8222***		-11.9604*
		(-1.8416)		(-2.6007)		(-1.7980)
Top 8	0.0194	6.1675	0.0021	-2.2209	-0.0012	7.7679
	(0.5819)	(0.8087)	(0.1002)	(-0.4610)	(-0.0486)	(1.3335)
Top 8 * Pub. Target	-0.0516	-19.9679*			-0.0161	-18.0624**
	(-1.1771)	(-1.9116)			(-0.4668)	(-2.2297)
Ln (Acquirer Size)	0.0078	10.3570***	0.0127	5.6843***	0.0071	6.1197***
	(0.7619)	(4.4531)	(1.6162)	(2.9409)	(0.8962)	(3.3491)
Tobin's Q	0.0057	0.9917	0.0066*	3.2570**	0.0110**	1.2124
	(1.1298)	(0.7532)	(1.6833)	(2.2065)	(2.5104)	(1.1079)
Free Cash Flow	0.0929	-14.6256	0.0570	-4.5637	0.0884	-7.9240
	(0.9191)	(-0.7313)	(0.8655)	(-0.2649)	(1.3162)	(-0.4580)
Leverage	0.0068	-15.5184	0.0399	-23.4267	0.0801	-53.9773***
	(0.0807)	(-0.8720)	(0.6162)	(-1.5020)	(1.2385)	(-4.2758)
Run-up	-0.0108	19.7924**	-0.0133	20.1948***	-0.0180	16.8134**
	(-0.4748)	(2.2429)	(-0.7729)	(2.8450)	(-0.9453)	(2.5367)
Sigma	0.4529	278.5961	0.5286	295.7239	0.1971	332.1132*
	(0.4976)	(1.2789)	(0.7729)	(1.5589)	(0.2938)	(1.7668)
Ln (Deal Value)	-0.0009	-8.1870***	-0.0107	-5.0438**	-0.0039	-5.7885***
	(-0.0841)	(-3.2043)	(-1.2800)	(-2.3310)	(-0.4828)	(-2.8372)
Relative Size	0.0094*	4.4674*	0.0089*	2.1963	0.0107**	2.8338
	(1.9090)	(1.8921)	(1.7261)	(0.8721)	(1.9740)	(1.1262)
Tender	-0.0815**	-22.3925**	-0.0297	-24.6955***	-0.0419	-17.8138**
	(-2.1709)	(-2.1621)	(-0.9567)	(-3.1921)	(-1.2632)	(-2.1319)
Hostile	0.0235	-7.8602	-0.0025	-6.6321	0.0239	4.6477
	(0.3145)	(-0.7368)	(-0.0390)	(-0.6096)	(0.4182)	(0.4953)
Relatedness			-0.0265	4.8695	-0.0164	5.2022
			(-1.4370)	(1.2599)	(-0.9203)	(1.4155)
Pub. Target * All-Cash	-0.0185	11.9255			-0.0139	4.5104
	(-0.4042)	(0.8354)			(-0.3687)	(0.4339)
Pub. Target * Pmt. incl. Stock	0.0113	-11.8773			0.0099	-5.5649
	(0.3381)	(-1.3812)			(0.3722)	(-0.8911)
Priv. Target * All-Cash	-0.0133	6.6764			-0.0157	10.4655
	(-0.2363)	(0.6191)			(-0.3858)	(1.1932)
Priv. Target * Pmt. incl. Stock	0.0240	-2.5951			0.0512**	-2.1914
	(0.6721)	(-0.3083)			(1.9899)	(-0.3693)
Sub. Target * All-Cash	-0.0491	0.5748			0.0063	3.7229
	(-1.1019)	(0.0554)			(0.1742)	(0.4897)
Pmt. incl. Stock			0.0002	-0.0520		
			(1.0850)	(-1.0573)		
Foreign Target	-0.0287	-12.0563	-0.0267	-6.8452	-0.0176	-9.4345
	(-0.7807)	(-1.3706)	(-0.9646)	(-1.1667)	(-0.6025)	(-1.5798)
Multiple Bidders	0.0585	11.7472	-0.0438	15.2349	-0.0187	6.3924
	(1.1805)	(0.9117)	(-1.0495)	(1.2082)	(-0.4728)	(0.8178)
Ln (Acq. Industry M&A)	-0.0086	3.4161*	-0.0048	2.0241	-0.0059	2.0836
	(-1.2131)	(1.7064)	(-0.7250)	(1.0469)	(-0.8996)	(1.4791)

Ln (Targ. Industry M&A)	-0.0050	1.9653	-0.0071	2.5992	-0.0046	2.0944
	(-0.7072)	(1.2195)	(-1.0631)	(1.5594)	(-0.7248)	(1.4789)
Average Use of Specialists by Industry Peers	0.6779***		0.6416***		0.6434***	
	(9.8175)		(11.8980)		(12.8456)	
Average Use of Specialists by Geographic Peers	0.8910***		0.9464***		0.9230***	
	(29.2118)		(37.1495)		(37.3706)	
Industry Fixed Effects	YES		YES		YES	
Year Fixed Effects	YES		YES		YES	
N	1395	1395	2501	2501	2437	2437
Hansen J Chi2	-	0.045	-	0.173	-	0.702
p-value	-	*0.832*	-	*0.678*	-	*0.402*
Instrument Strength Test	-	618.526	-	1005.928	-	978.055
F	52.150***	4.836***	91.220***	8.756***	80.066***	8.561***